
QUAM

MODELS

OF

DISEASES OF THE SKIN

CATALOGUE

OF THE

MODELS

OF

DISEASES OF THE SKIN

IN THE

MUSEUM OF GUY'S HOSPITAL

BY

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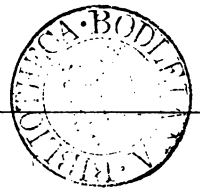

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PREFACE.

It has, I believe, long been felt by the Physicians and Surgeons of the Hospital that a change must, sooner or later, be made in the nomenclature applied to the collection of models of cutaneous affections contained in our Museum. This collection has been gradually increasing in importance and completeness, until one may now say that there is hardly a disease unrepresented in it, in which the skin is in any way concerned; and additions are still frequently being made, as cases come under the observation of any member of our staff, which appear to him worthy of having their cha racters recorded in this manner.

Consequently, on undertaking the office of Curator of the Museum, in 1873, the first task which I set to myself was the rearrangement of the models, and the preparation of a new catalogue of them. The existing catalogue, which was drawn up by Dr. Habershon in 1854, had become very incomplete; and it seemed to me advisable that somewhat fuller descriptions of the models themselves should be given, so that a student, desirous of learning from them the diseases of the skin, might more readily see what points were characteristic of each affection, and important to be noticed. I therefore wrote out a brief account of each model separately, not referring to the former catalogue

until afterwards, to supply any omissions that I might have made, or to correct any errors. My friend Mr. R. J. Pye-Smith has since very kindly assisted me by going through the whole collection again, and comparing the models with the descriptions of them; and the accuracy and completeness of the work have gained very much from his voluntarily undertaken labours. He has also been kind enough to construct for me a glossarial index, which will be found at the end of the volume, and which will be of great assistance to those who may wish to use the Catalogue for acquiring a knowledge of cutaneous affections. The proof sheets, too, have been looked over by Mr. Joseph Towne, the artist who made the models, and who has been able to tell me of many little points, that had been forgotten, in connection with the cases from which they were taken. Both to Mr. Pye-Smith and to Mr. Towne I offer my sincere thanks for the aid they have given to me.

It is, indeed, a remarkable and most fortunate circumstance that, during the whole of a period of at least forty years, the models of skin diseases for our museum should have been made by a single artist, the same who supplied our splendid series of anatomical models. Of the pains which he has lavished upon his work, and the fidelity with which he has executed it, there is no need for me to speak; they are sufficiently apparent to all who have given to the models the careful study which they deserve.

Up to the present time the classification and nomenclature employed for the collection have been almost exactly those introduced by the great Dr. Willan at the end of the las century. The authority of Dr. Addison, who may be regarded as the founder of the school of dermatology at Guy's, was strongly opposed to any departure from the ancient ways in these respects. But of late all the teachers of this

branch of medicine—including Sir W. Gull, Dr. Habershon, Dr. Wilks, myself, and Dr. F. Taylor—have, in succession, adopted a nomenclature which accords better with modern views.

The classification of eruptions introduced by Willan did, indeed, render great services, by facilitating the accurate study of the manifold appearances presented by the skin under diseased conditions. But this system was purely artificial. Inevitably, therefore, it was very soon followed by an attempt at the construction of a more natural system. Alibert succeeded Willan of necessity, just as in botany Jussieu came after Linnæus.

Unfortunately, however, the efforts of those who have laboured to devise a complete and logical natural classification of cutaneous affections have as yet been very much less successful than those of the botanists. A recent writer, Neumann, enumerates nine systems which have succeeded one another since the time of Alibert. The latest of them, and probably the only one which now presents much vitality, is that which was introduced by Professor Hebra, of Vienna. This rests upon an anatomico-pathological basis. It aims at arranging skin diseases according to the nature of the pathological processes concerned in their development. It takes first the hyperæmiæ, then the anæmiæ, then the exudationes or inflammatory affections, and so on, exactly after the fashion adopted by Rokitanski for diseases in general.

I think, however, that there is little likelihood that even Hebra's system of classification will maintain itself for any great length of time. The distinction between the hyperæmiæ and the exudationes seems to me to be purely an arbitrary one; as is, indeed, sufficiently evident from the fact that Hebra himself placed in the former of these two classes the

roseola which occasionally precedes the ordinary eruption in smallpox, but the rashes of scarlatina and measles in the latter. Hyperæmic and inflammatory affections cannot, I think, be kept distinct in any classification of eruptions that aims at being other than artificial; and, in reality, to make of the inflammations, even by themselves, one among twelve classes of cutaneous affections, is to give up altogether the attempt to divide these affections into groups bearing any proportion to one another. The exudationes do, in fact, occupy 656 pages of the English translation of Hebra's work; and within the limits of this one class most of the real difficulties in classifying the various eruptions have still to be encountered.

Another great obstacle in the way of the acceptance of Hebra's system is the difficulty which it introduces in dealing with parasitic affections. From an anatomical point of view most of them are inflammations, and Hebra accordingly places scabies by the side of eczema, but we hear nothing of tinea circinata under this head, and yet this is essentially an inflammation of the skin set up by the tricophyton tonsurans. To carry out the principle of classification logically and completely would, indeed, be exceedingly inconvenient in this instance, for the corresponding affection of the scalp—the *tinea tonsurans*—is attended with scarcely any signs of reaction on the part of the tissues infested by the tricophyton. But these two affections could hardly be separated from one another.

The truth is, I think, that no one would dream of constructing a systematic classification of cutaneous affections, if he were to look at these diseases, from a comprehensive point of view, as merely forming one branch of general pathology. It is not possible to classify the affections of

other organs. No writer ever attempts to devise a classification of the diseases of the lungs, or of the kidneys, or of the liver. Those who have to write treatises on any of these groups of diseases do not scruple to acknowledge that many of them are as yet very imperfectly understood; that their causes are not fully known; and that they appear to be linked together by transitional and complex forms, in such a way as to defy systematic arrangement. Surely we do not, at the present day, look for a logical system, under which the different forms of morbus Brightii should at once fall into their places among renal, or even those of phthisis among pulmonary, diseases. Why, then, should we expect an arrangement of the different eczematous affections, of psoriasis, &c., &c., which should be capable of resisting hostile criticism?

Indeed, there are not wanting good reasons why cutaneous eruptions should be more difficult to classify than the recognised diseases to which the different internal organs are liable. The great number and variety of the morbid appearances presented by the diseased skin during life are after death reduced within very narrow limits. On the post-mortem table the most marked affections of the integument are comparatively little noticeable; and it may safely be said, that if we could not, so to speak, study the morbid anatomy of the skin in the living patient, we should suppose its diseases to be neither many nor complex. Now, there is every probability that the various mucous membranes, and even perhaps the solid viscera, present morbid appearances which are as varied and numerous as those to which the skin is liable, but which are unknown to us, because they cannot be discovered after death, and we have no opportunity of seeing them during life.

I may refer for an illustration to the well-known case of Alexis St. Martin, whose stomach was exposed by a musket-

shot wound of the abdomen. Its mucous membrane was found to present various eruptions when in a morbid state; deep red pimples, at first sharp-pointed, afterwards filled with purulent matter; irregular circumscribed red patches; small aphthous crusts, &c. Are there not grounds for the supposition that if we were as well acquainted with all the appearances that the stomach may present, as we are with those that occur on the surface of the skin, we should find it even more difficult than we do now to arrange them in logical order?

I think, therefore, that instead of aiming at a strict classification of cutaneous eruptions, we may content ourselves with dividing them into what appear to be natural groups. (1) Some affections are caused by the presence of parasites; (2) others affect mainly the appendages of the skin, the hair, glands, or nails; (3) others are characterised by their destructive tendencies; they cause ulceration or atrophy of the integument, and are constantly followed by cicatrices. Yet others, again, comparatively seldom produce destructive changes in the skin; and of these some (4) are not inflammatory, while others (5) are more or less decidedly inflammatory in their nature.

It is true that these groups are not mutually exclusive; that the same disease (*e. g.*, tinea favus) may, 1, be parasitic; 2, affect the hair or nails; 3, destroy the tissues; and, 4, be more or less decidedly inflammatory. But all difficulty from this source may be avoided by giving a pre-eminence always to the first of the classes in which it is possible to place a given disease. In this way we can keep tinea favus among the parasitic affections, acne among the affections of the cutaneous appendages, &c. This may seem a roundabout and illogical method of arranging skin diseases; but I submit that some such method is in fact used by all who have

to name a cutaneous affection, however confident they may be that they really employ a strictly scientific classification. For the learner, however, it is not I think advantageous to take the several cutaneous affections in the order in which I placed these groups; beginning with those which are parasitic. A more natural course is to commence with diseases which are more commonly met with. In the following catalogue, therefore, I have adopted an inverse arrangement, in which the parasitic affections come last. The several diseases are placed under the main groups in the following order, which is devised with the object of keeping together, as far as possible, those diseases which appear to be connected with one another clinically, particularly if there should be intermediate forms between them.

ANALYTICAL INDEX.

NOMENCLATURE OF CUTANEOUS AFFECTIONS.

I. INFLAMMATORY (OR SIMPLY CONGESTIVE) DISEASES.

A. PROTECTING AGAINST RECURRENCE, OR AT LEAST NON-RELAPSING (EXANTHEMATA).

A. CONTAGIOUS.

a. Acute.

MORBILLI, 1—5.
SCARLATINA, 6, 7.
VARIOLA, 8—22.
Var. roseola variolosa (8—11).
VACCINIA, 23—31.
VARICELLA, 31—35.
TYPHUS, 36—43.
ENTERICA, 44, 45.
CHOLERA (roseola cholerica), 46—50.
EQUINIA, 51—59.

b. Chronic.

SYPHILIS, 60—133.

B. NON-CONTAGIOUS.

a. Diffused.

GENERAL DERMATITIS (of Wilks), 134—137.
ECZEMA ACUTUM,—

b. Partial.

ERYTHEMA NODOSUM, 138, 139.
ROSEOLA, 140.
HERPES ZOSTER vel ZONA, 141—146.

III. NON-INFLAMMATORY DISEASES, AFFECTING THE TISSUES OF THE SKIN PROFOUNDLY, AND GENERALLY DESTRUCTIVE IN THEIR TENDENCIES.

IV. AFFECTIONS OF THE APPENDAGES OF THE SKIN.

V. PARASITIC DISEASES.

LIST OF ELEMENTARY LESIONS,

WITH REFERENCES TO MODELS SHOWING TYPICAL EXAMPLES.

TABLE OF FORMER AND PRESENT NUMBERS AND NAMES.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
1	Strophulus intertinctus	187	Strophulus.
2	Strophulus intertinctus	188	Strophulus.
3	Strophulus albidus with rupia	194	Strophulus, rupia.
4	Strophulus confertus	189	Strophulus.
5	Strophulus candidus et volaticus	190	Strophulus.
5^5	Strophulus confertus	193	Strophulus.
6	Strophulus confertus et candidus	192	Strophulus.
7	Strophulus confertus	191	Strophulus.
8	Lichen simplex	253	Lichen.
8^5	Chronic lichen	255	Lichen.
8^6	Chronic lichen	254	Lichen.
9	Lichen circumscriptus	256	Lichen.
9^5	Lichen circumscriptus	257	Lichen circumscriptus.
9^{10}	Lichen circumscriptus	258	Lichen circumscriptus.
10	Lichen lividus	252	Lichen.
11	Prurigo mitis	——	
11^{10}	Prurigo mitis	——	
12	Prurigo senilis	185	Prurigo.
12^{10}	Prurigo	186	Prurigo senilis ?
13	Lepra vulgaris	229	Psoriasis (circinata).
14	Lepra vulgaris	224	Psoriasis (nummularis).
15	Lepra vulgaris	233	Psoriasis (rupioides).
16	Lepra vulgaris	234	Psoriasis (rupioides).
17	Lepra vulgaris	235	Psoriasis (rupioides).
18	Lepra vulgaris	236	Psoriasis (rupioides).
19	Lepra vulgaris et eczematodes	241	Psoriasis, eczema.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
19^{10}	Lepra vulgaris	237	Psoriasis (nummularis, rupioides).
19^{20}	Lepra	238	Psoriasis (guttata, rupioides).
20	Lepra alphoides	219	Psoriasis (punctata et guttata).
20^{20}	Lepra	232	Psoriasis (diffusa).
21	Lepra nigricans	227	Psoriasis (nummularis, nigricans).
22	Lepra nigricans	225	Psoriasis (guttata, nigricans).
23	Lepra nigricans	226	Psoriasis (guttata, nummularis et circinata, nigricans).
24	Lepra eczematodes	242	Psoriasis, eczema.
25	Lepra eczematodes	240	Psoriasis, eczema.
26	Lepra eczematodes	243	Psoriasis, eczema.
27	Lepra eczematodes	244	Psoriasis, eczema.
28	Lepra eczematodes (?)	239	Psoriasis, eczema.
29	Lepra vulgaris	247	Psoriasis, eczema.
30	Lepra vulgaris	246	Psoriasis, eczema.
31	Lepra alphoides	245	Psoriasis, eczema.
32	Lepra with eczema	248	Psoriasis, eczema.
33	Psoriasis palmaris	249	Psoriasis, eczema.
34	Lepra alphoides passing into psoriasis	223	Psoriasis (punctata, guttata, nummularis et circinata).
34^{10}	Psoriasis palmaris, resembling ichthyosis	250	Psoriasis palmaris. ?
35	Psoriasis guttata	220	Psoriasis (punctata et guttata).
35^{5}	Psoriasis guttata	218	Psoriasis (punctata et guttata).
36	Psoriasis guttata	221	Psoriasis (punctata, guttata et nummularis).
37	Psoriasis guttata	222	Psoriasis (guttata et nummularis).
38	Psoriasis diffusa	288	Eczema squamosum.
39	Psoriasis gyrata	231	Psoriasis (circinata).
40	Psoriasis gyrata	228	Psoriasis (nummularis et circinata).
41	Psoriasis labialis	285	Eczema rimosum (of lips).
41^{20}	Psoriasis labialis	286	Eczema (of lips).
42	Psoriasis palmaris	289	Eczema squamosum (of palm).
43	Psoriasis palmaris	283	Eczema rimosum.
44	Pityriasis versicolor	535	Tinea versicolor.
45	Pityriasis versicolor	533	Tinea versicolor.
45^{10}	Pityriasis versicolor	534	Tinea versicolor.
46	Pityriasis nigra	364	Melasma. ?
46^{50}	Pityriasis pilaris	327	Pityriasis pilaris.
46^{51}	Pityriasis pilaris	328	Pityriasis pilaris.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
46[53]	Pityriasis pilaris	329	Pityriasis pilaris.
46[55]	Pityriasis pilaris	326	Pityriasis pilaris.
48	Ichthyosis faciei	——	
49	Ichthyosis simplex	315	Ichthyosis.
50	Ichthyosis simplex	325	Ichthyosis hystrix.
50[5]	Ichthyosis	318	Ichthyosis with inflammation.
50[10]	Ichthyosis	316	Ichthyosis with inflammation.
50[11]	Ichthyosis	317	Ichthyosis with inflammation.
50[20]	Ichthyosis et eczema	320	Ichthyosis with inflammation. Impetigo.
51	Ichthyosis	323	Ichthyosis hystrix.
51[10]	Ichthyosis et impetigo	321	Ichthyosis. Impetigo.
51[11]	Ichthyosis et impetigo	322	Ichthyosis. Impetigo.
52	Ichthyosis	324	Ichthyosis hystrix.
52[5]	Ichthyosis senilis	319	Ichthyosis (?).
53	Ichthyosis (horny growth)	337	Horny growth.
53[10]	Ichthyosis (horny growth)	338	Horny growth.
53[11]	Ichthyosis (horny growth)	339	Horny growth.
53[20]	Warty growths	——	
54	Ichthyosis (horny growth)	333	Horny growth.
55	Ichthyosis (horny growth)	335	Horny growth.
56	Ichthyosis (horny growth)	336	Horny growth.
57	Ichthyosis (horny growth)	334	Horny growth.
58	Rubeola vulgaris	5	Morbilli.
59	Rubeola vulgaris.	——	
60	Rubeola vulgaris	2	Morbilli.
61	Rubeola vulgaris	1	Morbilli.
61[5]	Rubeola resembling variola	3	Morbilli.
61[10]	Rubeola resembling variola	4	Morbilli.
62	Scarlatina simplex.	——	
63	Scarlatina simplex	7	Scarlatina.
64	Scarlatina simplex	6	Scarlatina.
66	Urticaria evanida	150	Urticaria.
67	Urticaria evanida	151	Urticaria.
67[5]	Urticaria evanida	152	Urticaria.
68	Urticaria febrilis	153	Urticaria.
68	Urticaria conferta	154	Urticaria.
70	Urticaria conferta et tuberosa	155	Urticaria.
70[5]	Urticaria (factitious)	156	Urticaria (factitious).
70[6]	Urticaria (factitious)	157	Urticaria (factitious).
70[7]	Urticaria (factitious)	158	Urticaria (factitious).
71	Roseola annulata	161	Erythema multiforme (circinatum).

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
72	Roseola annulata	162	Erythema multiforme (papulatum et circinatum).
73	Roseola vaccina	30	Vaccinia.
73[5]	Roseola variolosa	8	Roseola preceding smallpox eruption.
73[10]	Roseola variolosa	9	Roseola preceding smallpox eruption.
73[15]	Roseola variolosa	140	Roseola.
73[20]	Roseola variolosa	159	Erythema multiforme (papulatum).
73[21]	Roseola variolosa	160	Erythema multiforme (papulatum).
74	Erythema nodosum	165	Erythema multiforme (tuberculatum).
75	Erythema nodosum	138	Erythema nodosum.
76	Erythema nodosum	139	Erythema nodosum.
76[5]	Erythema marginatum	163	Erythema multiforme (papulatum, circinatum, et marginatum).
76[10]	Erythema marginatum	168	Erythema multiforme (circinatum et marginatum et hæmorrhagicum).
76[15]	Erythema marginatum	164	Erythema multiforme (circinatum et marginatum).
77	Erysipelas	147	Erysipelas.
78	Erysipelas	149	Erysipelas.
78[10]	Acute dermatitis	134	Acute general dermatitis.
78[11]	Acute dermatitis	135	Acute general dermatitis.
78[12]	Acute dermatitis	136	Acute general dermatitis.
78[13]	Acute dermatitis	137	Acute general dermatitis.
79	Erysipelas phlegmonodes	148	Erysipelas.
79[80]	Typhus	36	Typhus.
80	Typhus	38	Typhus.
81	Typhus	37	Typhus.
82	Typhus	39	Typhus.
82[10]	Typhus	41	Typhus—Early roseola.
82[11]	Typhus	42	Typhus—Early roseola.
82[12]	Typhus	43	Typhus—Early roseola.
82[15]	Typhus	40	Typhus—Early roseola.
83	Typhoid	44	Enteric fever.
83[10]	Typhoid	45	Enteric fever.
83[50]	Roseola cholerica	49	Roseola cholerica.
83[55]	Roseola cholerica	50	Roseola cholerica.
83[56]	Roseola cholerica	46	Roseola cholerica.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
83[57]	Roseola cholerica	48	Roseola cholerica.
83[58]	Roseola cholerica	47	Roseola cholerica.
84	Purpura	—	
85	Purpura	34	Purpura.
85[10]	Purpura urticans	—	
85[15]	Purpura urticans	166	Erythema multiforme (hæmorrhagicum).
85[20]	Purpura urticans	167	Erythema multiforme (hæmorrhagicum).
85[25]	Purpura urticans	350	Purpura.
85[30]	Purpura urticans	169	Erythema multiforme (circinatum et hæmorrhagicum.
86	Purpura hæmorrhagica	351	Purpura.
86[10]	Purpura	352	Purpura.
86[11]	Purpura	353	Purpura.
87	Purpura senilis	349	Purpura.
88	Scorbutus. Purpura	355	Scorbutus.
89	Scorbutus. Purpura	354	Scorbutus.
90	Pompholyx benignus	197	Pemphigus.
91	Pompholyx benignus	196	Pemphigus.
92	Pompholyx diutinus	201	Pemphigus.
93	Pompholyx diutinus	198	Pemphigus.
94	Pompholyx	—	
95	Pompholyx diutinus	199	Pemphigus.
96	Pemphigus gangrenosus vel Rupia escharotica	208	Rupia escharotica.
96[10]	Pemphigus infantilis	—	
96[30]	Pemphigus	203	Pemphigus serpiginosus.
97	Pemphigus gangrænosus vel Rupia escharotica	209	Rupia escharotica.
98	Impetigo figurata	274	Eczema impetiginodes.
99	Impetigo sparsa	284	Eczema.
100	Impetigo sparsa	275	Eczema impetiginodes.
101	Impetigo scabida	279	Eczema impetigo.
102	Impetigo scabida	276	Eczema impetiginodes.
103	Impetigo scabida	280	Eczema impetigo.
104	Impetigo scabida	281	Eczema impetigo.
105	Impetigo	290	Eczematous affection of fingernails.
105[10]	Impetigo of fingers and nails	291	Eczema impetigo of extremities of fingers and toes.
105[11]	Impetigo of fingers and nails	292	Eczema impetigo of extremities of fingers and toes.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
105[13]	Impetigo of fingers and nails	293	Eczema impetigo of extremities of fingers and toes.
106	Porrigo furfurans	529	Tinea tonsurans.
107	Porrigo furfurans	528	Tinea tonsurans.
108	Porrigo scutulata ?	530	Tinea circinata.
109	Porrigo favosa	273	Eczema impetiginodes.
109[5]	Porrigo favosa	282	Eczema porrigo.
109[50]	Porrigo lupinosa of nail	536	Tinea favus of the nails.
109[51]	Porrigo lupinosa of nail	537	Nails affected with the Trichophyton tonsurans.
110	Porrigo lupinosa	——	
110[5]	Porrigo lupinosa	523	Tinea favus.
111	Porrigo lupinosa	524	Tinea favus.
112	Porrigo lupinosa	525	Tinea favus.
113	Porrigo lupinosa	526	Tinea favus.
114	Porrigo lupinosa	527	Tinea favus.
115	Porrigo ?	79	Pustular syphiloderma.
116	Ecthyma vulgare (vel luridum)	212	Ecthyma.
117	Ecthyma luridum	213	Ecthyma.
118	Ecthyma cachecticum	——	
119	Ecthyma cachecticum	80	Pustular (ecthymatous) syphiloderma.
120	Ecthyma cachecticum	——	
121	Ecthyma cachecticum	101	Serpiginous ulcerating syphiloderma.
121[5]	Ecthyma cachecticum	214	Ecthyma.
122	Ecthyma luridum. Furunculus	215	Furunculi and ecthyma.
123	Ecthyma ? Impetigo	100	Serpiginous (late) syphiloderma.
124	Variola discreta	12	Variola.
125	Variola discreta	13	Variola.
126	Variola discreta	14	Variola.
127	Variola discreta	15	Variola.
128	Variola discreta	16	Variola.
129	Variola confluens	19	Variola.
130	Variola confluens	20	Variola.
131	Variola confluens	21	Variola.
132	Variola confluens	22	Variola.
133	Variola (after vaccination)	18	Variola.
133[5]	Variola	17	Variola.
133[10]	Purpura preceding variola	10	Roseola preceding smallpox eruption.
133[11]	Purpura preceding variola	11	Roseola preceding smallpox eruption.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
134	Scabies papuliformis	——	
135	Scabies papuliformis	510	Scabies.
136	Scabies lymphatica	511	Scabies.
137	Scabies lymphatica	——	
138	Scabies lymphatica	512	Scabies.
139	Scabies purulenta	515	Scabies.
140	Scabies purulenta	516	Scabies.
141	Scabies purulenta vel cachectica	518	Scabies.
142	Scabies purulenta et papuliformis	520	Scabies.
143	Scabies purulenta	513	Scabies.
144	Scabies purulenta et cachectica	521	Scabies.
144[20]	Scabies	517	Scabies.
145	Scabies purulenta et cachectica	522	Scabies.
146	Scabies purulenta	519	Scabies.
147	Scabies purulenta	——	
148	Scabies et eczema	514	Scabies.
148[20]	Vesicular affection caused by application of nitric acid	299	Vesicular eruption caused by the local action of nitric acid.
148[30]	Factitious eruption	297	Vesicular eruption, due to the action of pigments used in dyeing.
148[31]	Factitious eruption	298	
149	Varicella. Vaccinia	31	Varicella accidentally occurring with vaccinia.
150	Varicella globularis	——	
151	Varicella globularis	——	
151[10]	? Varicella	32	Varicella.
151[20]	Varicella	33	Varicella or modified variola.
151[21]	Varicella	35	Varicella or modified variola.
151[22]	Varicella	34	Varicella or modified variola.
152	Vaccinia	23	Vaccinia.
153	Vaccinia	24	Vaccinia.
154	Vaccinia	25	Vaccinia.
155	Vaccinia	26	Vaccinia.
156	Vaccinia	——	
157	Vaccinia	——	
158	Vaccinia	27	Vaccinia.
159	Vaccinia	28	Vaccinia.
160	Vaccinia	29	Vaccinia.
161	Herpes phlyctenodes	143	Herpes zoster.
162	Herpes phlyctenodes	182	Herpes ?
163	Herpes labialis et phlyctenodes	181	Herpes.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
163[5]	Herpes ophthalmicus	183	Herpes of eyelids, associated with ophthalmia.
163[6]	Herpes ophthalmicus	184	Herpes of eyelids, associated with ophthalmia.
163[10]	Herpes phlyctenodes	144	Herpes zoster.
164	Herpes zoster	142	Herpes zoster.
164[10]	Herpes zoster (ulcerating).	145	Herpes zoster; ulceration.
165	Herpes zoster	141	Herpes zoster.
165[5]	Herpes zoster	——	
166	Herpes annularis vel circinatus	177	Herpes circinatus.
167	Herpes circinatus	531	Tinea circinata ?
168	Herpes circinatus	——	
169	Herpes circinatus	179	Herpes circinatus (erythema multiforme ?)
170	Herpes circinatus	180	Herpes circinatus ?
171	Herpes circinatus vel iris	178	Herpes circinatus.
172	Herpes iris	——	
172[5]	Herpes iris	174	Hydroa.
172[6]	Herpes iris	175	Hydroa.
172[10]	Herpes iris	176	Hydroa.
173	Rupia simplex	210	Ecthyma.
174	Rupia simplex	211	Ecthyma.
174[20]	Rupia	216	Ecthyma vel rupia.
174[30]	Rupia	214	Ecthyma.
175	Rupia simplex	109	Rupial syphiloderma ?
176	Rupia prominens	111	Rupial syphiloderma.
177	Rupia prominens	110	Rupial syphiloderma.
178	Rupia prominens	112	Rupial syphiloderma.
179	Rupia cachectica	114	Tubercular, rupial, and ulcerating syphiloderma.
180	Rupia ?	217	? Ecthyma ? Rupia.
181	Rupia	113	Rupial syphiloderma.
181[5]	Rupia escharotica	108	Rupial syphiloderma.
181[6]	Rupia escharotica	206	Rupia escharotica.
181[7]	Rupia escharotica	207	Rupia escharotica.
181[10]	Rupia. Pompholyx	200	Pemphigus.
182	Miliaria	480	Miliaria vel sudamina.
182[5]	Miliaria	——	
182[10]	Miliaria alba	481	Miliaria vel sudamina.
182[15]	Vesicular affection caused by croton oil	295	Vesicular eruption caused by the application of croton oil.
182[16]	Vesicular affection caused by croton oil	294	Vesicular eruption caused by the application of croton oil.
183	Eczema solare	264	Eczema vesiculosum.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
184	Eczema solare	266	Eczema vesiculosum et impetiginodes.
185	Eczema impetiginodes	277	Eczema impetigo.
185[5]	Eczema impetiginodes	278	Eczema impetigo.
186	Eczema rubrum	271	Eczema rubrum vel madidans.
187	Eczema rubrum	272	Eczema vesiculosum et impetiginodes.
188	Eczema rubrum	269	Eczema rubrum vel madidans.
189	Eczema rubrum	270	Eczema rubrum vel madidans.
190	Eczema rubrum	268	Eczema rubrum vel madidans.
191	Eczema rubrum	267	Eczema vesiculosum, squamosum, et madidans.
192	Eczema rubrum	287	Eczema (modified by treatment).
192[50]	Eczema arsenicale	265	Eczema vesiculosum.
192[60]	Squamous affection due to fumes of arsenic	304	Eruption (eczema squamosum) caused by the fumes of arsenic.
193	Verruca ?	331	Verruca.
193[10]	Anomalous warty tubercle	332	Verruca ?
193[20]	Acne cornea	491	Acne cornea.
193[50]	Verruca necrogenica	309	Chronic inflammation of the skin caused by the contact of fluids from the dead body.
193[51]	Verruca necrogenica	310	
193[60]	Verruca necrogenica	311	Chronic inflammation of the skin caused by the contact of fluids from the dead body.
193[61]	Verruca necrogenica	307	Acute and chronic inflammation of the skin caused by the contact of fluids from the dead body.
193[62]	Verruca necrogenica	308	
193[70]	Congenital warts on abdomen	330	Verruca.
194	Molluscum	492	Molluscum contagiosum.
195	Molluscum	493	Molluscum contagiosum.
196	Molluscum	501	Molluscum fibrosum.
196[50]	Molluscum	497	Molluscum fibrosum.
196[60]	Molluscum	495	Molluscum contagiosum.
196[70]	Molluscum	498	Molluscum fibrosum.
197	Molluscum	496	Molluscum contagiosum.
198	Molluscum	499	Molluscum fibrosum.
199	Molluscum	500	Molluscum fibrosum.
199[50]	Scrofulous enlargement of joints	—	Placed among models of surgical affections.
199[60]	Thickening of the integuments	453	Chronic thickening of the integuments.
200	Vitiligoidea plana	372	Xanthelasma planum.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
200[10]	Vitiligoidea plana	378	Xanthelasma planum et tuberosum.
200[11]	Vitiligoidea tuberosa	379	Xanthelasma planum et tuberosum.
201	Vitiligoidea plana	373	Xanthelasma planum.
202	Vitiligoidea tuberosa ?	262	Lichen ?
203	Vitiligoidea tuberosa ?	374	Xanthelasma planum et tuberosum.
203[5]	Vitiligoidea tuberosa	376	Xanthelasma planum et tuberosum.
204	Vitiligoidea tuberosa	375	Xanthelasma planum et tuberosum.
204[5]	Vitiligoidea tuberosa	377	Xanthelasma planum et tuberosum.
204[10]	Vitiligoidea plana et tuberosa.	——	
205	Vitiligoidea tuberosa	——	
206	Vitiligoidea tuberosa	384	Xanthelasma tuberosum ?
207	Vitiligoidea ? (anomalous tubercle)	263	Lichen.
208	Acne punctata	484	Comedo et acne simplex.
208[5]	Acne punctata	483	Comedo (acne punctata) et acne simplex.
208[10]	Acne punctata	482	Comedo (acne punctata).
208[50]	Acne following variola	488	Acne and impetigo consecutive to variola.
208[51]	Acne following variola	489	Acne and impetigo consecutive to variola.
209	Acne indurata	486	Acne indurata.
209[50]	Acne cornea	490	Acne cornea.
210	Acne indurata	485	Acne indurata.
211	Acne indurata et rosacea	487	Acne rosacea et hypertrophica.
212	Lichen urticatus	261	Lichen urticatus (? Urticaria lichenoides.
212[5]	Lichen urticatus	——	
212[50]	Lichen planus	259	Lichen planus.
212[55]	Lichen planus	260	Lichen planus.
213	Sycosis menti.	——	
214	Sycosis menti	478	Sycosis.
214[10]	Sycosis ?	479	Sycosis.
215	Lupus	99	Tubercular syphiloderma.
216	Lupus	102	Ulcerating and encrusted syphiloderma.
217	Lupus	397	Lupus vulgaris.
218	Lupus	398	Lupus ?

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
219	Lupus	396	Lupus vulgaris.
219[10]	Lupus	400	Lupus.
219[20]	Lupus	401	Lupus ?
219[21]	Lupus non exedens	391	Lupus vulgaris.
219[22]	Lupus non exedens	393	Lupus vulgaris.
219[23]	Lupus non exedens	392	Lupus vulgaris.
219[24]	Lupus non exedens	385	Lupus erythematosus.
219[25]	Lupus exedens	119	Phagedæna of nose and face.
219[26]	Lupus exedens	118	Sloughing phagedæna of lips nose, &c.
219[30]	Lupus exedens	103	Ulcerating syphiloderma.
219[31]	Lupus exedens	104	Ulcerating syphiloderma.
219[35]	Lupus follicularis	386	Lupus erythematosus.
219[40]	Lupus	——	
219[45]	Lupus	394	Lupus vulgaris.
219[50]	Lupus	395	Lupus vulgaris.
219[60]	Lupus	389	Lupus vulgaris.
219[61]	Lupus	390	Lupus vulgaris.
220	Keloid (of Addison)	409	Circumscribed scleroderma.
221	Keloid (of Addison)	410	Circumscribed scleroderma.
221[10]	Cancer, of keloid form	470	Cancer of the skin, simulating keloid.
221[11]	Cancer, of keloid form	471	Cancer of the skin, simulating keloid.
222	Keloid (of Addison)	405	Circumscribed scleroderma.
223	Keloid (of Addison)	406	Circumscribed scleroderma.
224	Keloid (of Addison)	407	Circumscribed scleroderma.
225	Keloid (of Addison)	411	Circumscribed scleroderma.
226	Keloid (of Addison)	412	Circumscribed scleroderma.
226[10]	Keloid	418	Scleroderma ?
226[20]	Keloid.	——	
226[30]	Keloid	465	Keloid (? cicatricial).
227	Keloid (of Addison)	415	Circumscribed scleroderma.
227[10]	Keloid (of Addison)	413	Circumscribed scleroderma.
227[11]	Keloid (of Addison)	414	Circumscribed scleroderma.
228	Keloid (of Addison)	416	Circumscribed scleroderma.
228[10]	Keloid (of Addison)	417	Circumscribed scleroderma.
228[15]	Keloid (of Addison)	421	Morphœa.
228[50]	Linear atrophy of the skin	340	Linear atrophy of the skin.
228[51]	Linear atrophy of the skin	341	Linear atrophy of the skin.
228[53]	Linear atrophy of the skin	342	Linear atrophy of the skin.
228[60]	Linear atrophy of the skin	343	Linear atrophy of the skin.
228[61]	Linear atrophy of the skin	344	Linear atrophy of the skin.
228[62]	Linear atrophy of the skin	345	Linear atrophy of the skin.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
229	Keloid (of Alibert)	454	Keloid.
229[10]	Keloid (of Alibert)	455	Keloid.
230	Keloid (of Alibert)	456	Keloid.
231	Keloid (of Alibert) ?	459	Keloid ?
231[10]	Keloid (of Alibert)	461	Keloid (? cicatricial).
231[11]	Kelold (of Alibert)	462	Keloid (? cicatricial).
231[15]	Keloid (of Alibert)	460	Keloid (cicatricial).
231[20]	Syphilitic keloid	463	Keloid (cicatricial).
231[21]	Syphilitic keloid	464	Keloid (cicatricial).
231[30]	Keloid of Addison, linear atrophy	408	Circumscribed scleroderma.
231[31]	Keloid of Addison, linear atrophy	346	Linear atrophy of the skin.
231[32]	Keloid of Addison, linear atrophy	347	Linear atrophy of the skin.
231[40]	Keloid in scar of bubo	466	Hypertrophied cicatrix after suppurating bubo.
231[50]	Primary cancer of skin	472	Diffuse primary cancer of the skin.
231[50 bis]	Keloid ?	468	Cicatricial keloid and pemphigus ?
231[51]	Lepra tuberculosa ?	469	Cicatricial keloid and pemphigus ?
231[52]	Lepra tuberculosa ?	467	Cicatricial keloid and pemphigus ?
231[80]	Keloid of Addison ?	387	Lupus erythematosus ?
231[81]	Keloid of Addison ?	388	Lupus erythematosus ?
232	Elephantiasis	423	Lepra tuberculosa.
233	Elephantiasis (or West Indian leprosy)	432	Lepra tuberculosa et anæsthetica.
233[5]	Elephantiasis (or West Indian leprosy)	434	Lepra tuberculosa et anæsthetica.
233[10]	Elephantiasis (or West Indian leprosy)	433	Lepra tuberculosa et anæsthetica.
234	Elephantiasis (or West Indian leprosy)	424	Lepra tuberculosa.
235	Elephantiasis (or West Indian leprosy)	425	Lepra tuberculosa.
235[5]	Elephantiasis (or West Indian leprosy)	426	Lepra tuberculosa.
235[10]	Elephantiasis (or West Indian leprosy.	427	Lepra tuberculosa.
236	Elephantiasis (or East Indian leprosy)	428	Lepra tuberculosa.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
236[5]	Lepra anæsthetica	439	Lepra anæsthetica.
236[6]	Lepra anæsthetica	440	Lepra anæsthetica.
236[10]	Lepra tuberculosa	429	Lepra tuberculosa et anæsthetica.
236[11]	Lepra tuberculosa	430	Lepra tuberculosa et anæsthetica.
236[12]	Lepra tuberculosa	431	Lepra tuberculosa et anæsthetica.
236[15]	Elephantiasis Græcorum	445	Lepra anæsthetica.
236[20]	Elephantiasis vel Lepra anæsthetica	444	Lepra anæsthetica.
236[25]	Elephantiasis vel Lepra anæsthetica	442	Lepra anæsthetica.
236[26]	Elephantiasis vel Lepra anæsthetica	441	Lepra anæsthetica.
236[27]	Elephantiasis vel Lepra anæsthetica	443	Lepra anæsthetica.
237	Elephantiasis spuria	435	Lepra tuberculosa et (?) anæsthetica.
237[10]	Elephantiasis spuria	446	Lepra anæsthetica.
237[11]	Elephantiasis spuria	447	Lepra anæsthetica.
238	Elephantiasis spuria	436	Lepra tuberculosa et (?) anæsthetica.
239	Elephantiasis spuria	437	Lepra tuberculosa et (?) anæsthetica.
240	Elephantiasis spuria	438	Lepra tuberculosa et (?) anæsthetica.
241	Elephas (Barbadoes leg)	448	Elephantiasis (Arabum).
242	Elephas (Barbadoes leg)	450	Elephantiasis (Arabum).
243	Elephas	449	Elephantiasis (Arabum).
243[5]	Elephantiasis	451	Elephantiasis (Arabum).
243[6]	Elephantiasis	452	Elephantiasis (Arabum).
244	Frambœsia ?	117	? Gummous ulceration of skin.
244[10]	Disease of nails of hand	508	Paronychia. Inflammation of the roots of the nails, with exfoliation of the nails themselves.
244[11]	Disease of nails of hand	507	
244[13]	Disease of nails of hand	509	
244[15]	Disease of nails of hand	506	Psoriasis of nails ?
244[50]	Nails affected by arsenic	306	Diseases of the nails caused by the local action of arsenic.
245	Melasma of Addison	356	Melasma suprarenale.
245[5]	Melasma of Addison	357	Melasma suprarenale.
246	Melasma of Addison	371	Leucoderma.
246[10]	Melasma of Addison	358	Melasma suprarenale.
246[11]	Melasma of Addison	359	Melasma suprarenale.
246[12]	Melasma of Addison	—	Transferred to collection of models illustrating internal pathology.
246[15]	Melasma of Addison	361	Melasma suprarenale.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
246[16]	Melasma of Addison	360	Melasma suprarenale.
246[17]	Melasma of Addison		Transferred to collection of models illustrating internal pathology.
246[40]	Congenital discoloration of skin	365	Melasma (congenital)
246[50]	Maculæ syphiliticæ	90	Pigmentary syphiloderma.
246[51]	Maculæ syphiliticæ	91	Pigmentary syphiloderma
247	Ephelis	370	Ephelis.
247[5]	Ephelis ab igne	368	Ephelis ab igne.
247[10]	Ephelis ab igne	369	Ephelis ab igne.
247[50]	Lentigo vel Ephelis	366	Lentigo vel Ephelis solare.
247[51]	Lentigo vel Ephelis	367	Lentigo vel Ephelis solare.
247[40] 247[41]	Decomposed body, showing stains in lines of veins		Transferred to collection of models illustrating morbid anatomy.
248 to 255	Nævus		Transferred to collection of models illustrating surgical pathology.
256	Lichen syphiliticus	64	Papular syphiloderma.
257	Lichen syphiliticus	65	Papular syphiloderma.
258	Lichen syphiliticus	66	Papular syphiloderma.
259	Lichen syphiliticus	67	Papular syphiloderma.
260	Lichen syphiliticus	72	Papular passing into squamous syphiloderma.
261	Lichen syphiliticus	73	Papular passing into squamous syphiloderma.
262	Lichen syphiliticus	68	Papular syphiloderma.
263	Lichen syphiliticus	71	Papular syphiloderma.
264	Lichen syphiliticus	70	Papular syphiloderma.
265	Lichen syphiliticus	69	Papular syphiloderma.
266	Lepra syphilitica	83	Squamous syphiloderma.
267	Lepra syphilitica	88	Circinated syphiloderma.
268	Lepra syphilitica	81	Squamous syphiloderma.
268[5]	Lepra syphilitica	82	Squamous syphiloderma.
269	Lepra syphilitica	85	Squamous syphiloderma ?
270	Lepra syphilitica	84	Squamous syphiloderma.
270[3]	Pompholyx syphiliticus.		
270[5]	Psoriasis gyrata syphilitica.	127	Inherited syphilis (Circinated squamous syphiloderma).
270[7]	Psoriasis gyrata syphilitica	87	Early circinated syphiloderma.
270[10]	Pompholyx ? syphiliticus	195	? Pemphigus or bullous syphiloderma.
270[20]	Roseola syphilitica	63	Exanthematic syphiloderma ?
270[30]	Psoriasis circinata syphilitica	86	Early circinated syphiloderma.
271	Ecthyma syphiliticum	76	Pustular (ecthymatous) syphiloderma.

Former Catalogue. No.	Name.	Present Catalogue. No.	Name.
271[50]	Ecthyma cachecticum, with rupia	77	Pustular (ecthymatous) syphiloderma.
272	Ecthyma syphiliticum.		
273	Ecthyma syphiliticum	116	Encrusted (rupial) and serpiginous syphiloderma.
274	Rupia syphilitica	115	Encrusted and ulcerating (rupial) syphiloderma.
274[10]	Rupia syphilitica	105	Pustular (rupial) syphiloderma.
274[11]	Rupia syphilitica	106	Pustular (rupial) syphiloderma.
274[12]	Rupia syphilitica	107	Pustular (rupial) syphiloderma.
275	Tubercula syphilitica	97	Tubercular syphiloderma.
275[5]	Tubercula syphilitica	98	Tubercular syphiloderma.
275[10]	Chancre and roseola syphilitica	61	Syphilis. Chancre. Macular and papular syphilodermata.
275[11]	Chancre and roseola syphilitica	62	Syphilis. Chancre. Macular and papular syphilodermata.
276	Tubercula syphilitica.		
277	Tubercula syphilitica	96	Tubercular syphiloderma.
278	Tubercula syphilitica	74	Papular syphiloderma.
279	Tubercula syphilitica	78	Syphiloderma of indefinite character.
280	Tubercula syphilitica ?	——	
281	Syphilis congenitale	122	Inherited syphilis.
282	Syphilis congenitale	121	Inherited syphilis.
283	Syphilis congenitale	120	Inherited syphilis.
284	Syphilis congenitale, herpes	124	Inherited syphilis.
284[10]	Affection of mouth and teeth from syphilis	129	Inherited syphilis.
284[20]	Affection of mouth and teeth from syphilis	130	Inherited syphilis.
284[30]	Affection of teeth from syphilis	131	Inherited syphilis.
284[31]	Affection of teeth from syphilis	132	Inherited syphilis.
284[32]	Affection of teeth from syphilis	133	Inherited syphilis.
285	Syphilis congenitale	123	Inherited syphilis.
288[5]	Syphilis congenitale, pompholyx	128	Inherited syphilis (papular and bullous syphilodermata).
286 to 289	Anthrax		Removed to collection of models illustrative of surgical pathology.
290 to 293	Melanosis		Removed to collection of models illustrative of surgical pathology.
294	Equinia. Glanders	57	Equinia.
295	Equinia. Glanders ?	58	Equinia.

Former Catalogue.		Present Catalogue.	
No.	Name.	No.	Name.
296	Glanders (ulceration)	59	Equinia (PP).
296[10]	Glanders	51	Equinia.
296[11]	Glanders	52	Equinia.
296[20]	Glanders	55	Equinia.
296[21]	Glanders	56	Equinia.
296[30]	Glanders	53	Equinia.
296[31]	Glanders	54	Equinia.
297	Ulceration from bite of a snake	——	Removed to collection of surgical models.
298	Gangrene of the skin	476	Circumscribed gangrene.
298[10]	Tubercular affection of breast produced by cantharides	296	Tubercular eruption caused by the local application of cantharides.
298[56]	Superficial gangrene of skin	473	Circumscribed gangrene.
298[56]	Superficial gangrene of skin	474	Circumscribed gangrene.
298[57]	Superficial gangrene of skin	475	Circumscribed gangrene.
299	Ecchymosis after death	——	Removed to collection of models illustrative of pathological anatomy.
299[10]	Hand affected by oxalic acid	300	Inflammation of the skin, set up by the local action of oxalic acid.
299[20]	Hand affected by oxalic acid	301	
300	White tubercle	419	Morphœa.
300[5]	White tubercle	420	Morphœa.
301	Model of abdomen, showing distended texture of skin and vesication.	——	

MORBILLI OR MEASLES.

An acute contagious disease, which protects against itself, and is attended with an eruption of spots, slightly raised, of a crimson colour, generally running together into patches with crescentic borders, and separated by portions of healthy skin. The rash usually appears on the fourth day of the patient's illness. It lasts six or seven days.

1. MORBILLI. Model of the face of a child covered with the rash of measles.

2. MORBILLI. Model of the chest and abdomen of a child covered with a rash of measles, which presents a finely punctated appearance, so that it can hardly be said to exhibit the ordinary characters of this eruption.

MORBILLI. Two models (3 and 4) from a case of morbilli, in which the rash consisted of papules, distinct from one another, so that they resembled rather those seen in an early stage of smallpox. It was especially on this account that the models were made.

3. Model of the left side of the face and neck, which are thickly covered with a mottled rash, consisting of maculæ of a deep crimson colour, in some parts passing into a brownish tinge. Except on the neck, the borders of the maculæ are not very well defined. On the forehead there are some raised papules, which certainly look very like those of commencing variola.

4. Model of the anterior surface of the right elbow and forearm of the same patient.

The patient was a young woman. At first there was much doubt as to the nature of the eruption.

5. MORBILLI. Model of the face of a child covered with an eruption of measles.

SCARLATINA OR SCARLET FEVER.

An acute contagious disease, which protects against itself, and is attended with a rash of bright scarlet colour, consisting of small dots which run together, so that the whole of the affected surface is more or less reddened. The rash appears on the second day of the patient's illness. It commonly disappears by the seventh day, and is followed by desquamation.

6. SCARLATINA. Model of the left buttock and back of the thigh of a child affected with scarlatina. The rash is seen to be a diffused bright scarlet blush, more or less punctated in character, and upon this are scattered a few rather large papules of a deeper red colour. There are also some shining vesicles.

7. SCARLATINA. Model of the back of a child affected with this disease. The rash is finely punctated and of a bright scarlet hue.

Models 6 and 7 were taken from two among five children of the same family, all of whom suffered from scarlet fever at the same time.

On account of the vesicles shown in Model 6, the affection was called "scarlatina miliaris" in the former catalogue. This character, however, is not of much importance, being simply due to the presence of sudamina, in addition to the usual exanthem. If carefully looked for, they are found to occur in a large proportion of cases.

VARIOLA OR SMALLPOX.

An acute contagious disease, which protects against itself, and is attended with an eruption that passes successively through the stages

of papule, vesicle, and pustule. It appears usually on the third day of the patient's illness, and the pustules reach maturity in eight days. They then dry up into crusts; and these, when they fall off, leave stains, which may or may not be followed by permanent cicatrices.

Occasionally this eruption is preceded by a rash consisting of scarlet or crimson maculæ, so that it resembles that of scarlet fever or measles; this is called a roseola.

In some cases the papules, when their summits have only just begun to contain fluid, dry up and scab over about the third or fourth day; this may occur even in unvaccinated individuals, but it is more common in persons who have been vaccinated, and the disease is then named "modified smallpox."

ROSEOLA PRECEDING SMALLPOX ERUPTION. Two models (8 and 9) of the left forearm of a patient, representing successive stages of a roseolous eruption preceding smallpox.

8. In this model is seen a scattered roseolous rash, of no definite pattern, covering the whole flexor surface of the forearm, from just below the elbow to the wrist. There are also a few papules belonging to the true smallpox eruption.

9. In this model a large part of the diffused rash shown in the previous model is absent, but about the wrist the eruption has increased. Some of the ill-defined patches displayed in the former model are now represented by well-marked rings, surrounded by a blush of deep redness. On the upper part of the forearm scattered papules, which belong to the true variolous eruption, may be seen; these are larger than in the preceding model.*

The patient, S. W—, a woman, æt. 54, had been a patient in the hospital for more than a fortnight, at a time when several cases of smallpox broke out in the ward of which she was an inmate. She herself was then seized with the most marked symptoms of variola and orders were given that she should at once be removed. Against this she protested, saying that she had before had smallpox very badly, and could not have it again. She was, however, very ill, and her hands

* Evidently it was by mistake that in the former Catalogue 9 was placed before 8, as representing an *earlier* stage of the affection. Mr. Towne is clear upon this point.

became swollen and of a red colour, and a remarkably bright roseolous rash appeared on the inner side of both arms. By the following day the roseola had nearly subsided, and the hands had regained their natural appearance: The day after this a crop of small pimples appeared on the chest and arms, which in distribution followed very much that of the previous roseola, resembling both to the touch and to the sight the papular rash of smallpox, as it appears on the second day. Afterwards these papules died away and the patient rapidly recovered.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. iii, p. 348.

VARIOLA. Two models (10 and 11) from a case of smallpox, in which the ordinary eruption was preceded by a roseola, affecting the lower part of the abdomen and thighs, which after a time assumed a distinctly purpuric character.

10. Model of the left side of the abdomen and left thigh. All that part of the abdominal surface which lies below the level of the crista ilii is covered with a fine purpuric rash, which also extends a little way on to the thigh. Below this, on the thigh, there is an abundant variolous eruption, in an early stage, consisting of papules only a few of which have become vesicular at their summits. The abdomen presents no trace of this eruption, either within the area which is affected with the purpuric rash or elsewhere.

11. Model of the face of the same patient, covered with the ordinary eruption of smallpox in a vesicular stage.

The patient, James R—, æt. 15, was admitted under the care of Dr. Barlow, with cough and symptoms of incipient phthisis. He sat for some time next to a man whose complaint was not then apparent, but who was subsequently found to have smallpox. The lad was soon afterwards observed to be ill. For the first day or two he got up as usual, in spite of feeling very unwell; but one morning he found that he was obliged to go to bed again, and he then began to complain of severe pain in the head and back, and he vomited. On the following day he had a roseolous rash upon the body and legs, which Mr. Stocker at once suspected to be due to the onset of variola. It should be stated that he had been vaccinated when he was ten months old, and that the resulting cicatrices were still very plainly to be seen.

A day later, the rash on the abdomen became petechial, as is shown in the first model. The true variolous eruption now came out upon the

face and extremities. The disease ran its course without any particular severity, and the boy made a good recovery.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. vii, p. 308.

VARIOLA. A series of models (12 to 16) showing the alterations in the appearance of the smallpox eruption from day to day.

12. Model of the head and face of a young child covered with an eruption of smallpox in its earliest stage. The papules are of the same colour as the rest of the skin, and can hardly be seen unless the light is made to fall upon them. This model was taken on the *first* day of the eruption. The papules could doubtless be felt much more plainly than they could be seen.

13. Model of the back of the right leg and sole of the foot, showing the eruption of smallpox on the *second* day. The papules are becoming distinctly vesicular at their summits, and some of them are surrounded by minute red rings.

This child was a member of the same family as the one from which model 12 was taken.

14. Model of the leg of the same child, showing the eruption on the *fourth* day. The vesicles are rather larger than millet seeds, and flattened; and almost all of them have a central umbilicus, and are surrounded by a slight red halo. They are not numerous, and are all distinct from one another.

15. Model of the same leg on the *eighth* day of the eruption. The vesicles are now most of them as large as split peas. They are more raised; the redness of the skin round them is more marked, and their summits appear to be already becoming horny and drying up.

16. Model of the same leg on the *tenth* day, five days later than the last model. The vesicles have now dried up, and their roofs form horny brown masses. The red halo that existed round each vesicle has entirely disappeared.

No record is preserved of the case from which these models were taken; but there can be little doubt, from the early drying up of the

vesicles, that the patient had been vaccinated, and that the disease was in fact "modified variola."

17. VARIOLA. Model of the right forearm and hand of a child affected with a smallpox eruption at a rather early stage. The vesicles are intermediate in size between those represented in models 14 and 15. Many of them have an umbilicus, and all have a red halo around them. Their colour is yellowish, so that it is probable that they have really lasted longer than might appear from their size.

In the older catalogue this model is described as representing modified variola resembling varicella, but I do not know that the eruption presents any characters that can be said to belong to varicella rather than to mild smallpox.

18. VARIOLA. Model of the back of the right hand and fore arm of a patient affected with a smallpox eruption in a somewhat advanced stage. The vesicles are larger than split peas; their summits are rounded; their contents appear to be rather opaque. They have but little redness around them. On the forearm there are but few of them, and these are all separate from one another; but on the back of the hand they are numerous, and some of them show a disposition to become confluent.

The patient was the servant of Dr. Cholmeley, and it is especially stated in the former catalogue that he had been vaccinated. The disease, however, does not appear to have been modified by this circumstance.

19. VARIOLA. Model of the left hand and forearm and elbow of a patient, showing the eruption in a case of confluent smallpox on the *fifth* day. The vesicles cover nearly the whole surface very thickly. Some of them are isolated, and have each a distinct umbilicus and a slight pink areola; but most of them have coalesced with one or more vesicles near them, forming an irregular pattern. Here and there may be seen an islet of healthy skin.

20. VARIOLA. Model of the right hand and part of the forearm of a young woman affected with confluent smallpox.

This model was taken on the *sixth* day. The eruption is very much less full than in the preceding case, and it is confluent only on the backs of the fingers and over the knuckles. On the forearm the vesicles are not very numerous, and almost all of them are perfectly distinct from one another.

21. VARIOLA. Model of the left upper limb of a child, showing the smallpox eruption in a confluent form on the *seventh* day. In this case the intensity of the disease, as measured by the number of the vesicles, appears to have been intermediate between that of the case represented in model 19 and that in model 20. All the affected parts present scattered islets of healthy skin of considerable size, but the eruption is everywhere decidedly confluent.

22. VARIOLA. Model of the left forearm and back of the hand of an adult patient suffering from smallpox, showing the eruption (which is of the confluent form) on the *ninth* day. The vesicles have everywhere passed into pustules and have run together, forming an irregular pattern, with circumscribed narrow islets of greatly reddened but otherwise healthy skin.

VACCINIA OR COWPOX.

An affection produced by inoculation from matter derived, directly or by descent, from the udder of the cow when affected with a disease which is really a form of variola occurring in that animal; it therefore possesses the power of protecting against smallpox. At the end of the second or on the third day after the inoculation a minute papule begins to appear at each of the seats of puncture; this by the fifth or sixth day becomes a vesicle, which soon exhibits a central depression or umbilicus, but which up to the eighth day has only a very narrow red border round it. The vesicle goes on increasing in size, and on the eighth day it begins to be surrounded by a broad red zone, which then is termed the areola. After the tenth day the areola fades, the vesicle begins to dry in its centre, the lymph becomes

opaque and concretes. By the fourteenth or fifteenth day a brown or mahogany-coloured crust is formed, which falls off about the twentieth day, leaving a well-marked scar, which has often a peculiar "pitted" appearance.

Occasionally it happens that, in addition to the vesicles which result directly from the inoculation of vaccine matter, an eruption appears upon other parts; this is generally macular, but it sometimes consists of papules, or even vesicles. It comes out about the ninth or tenth day, and chiefly upon the limbs; it is very transitory, not lasting more than a week. (See model 33.)

VACCINIA. A series of models (23 to 26) showing the successive stages in the development of the vaccine vesicle on the left arm of an infant.

23. This model shows the effects of vaccination at two points, the upper one representing the appearances seen on the *third*, the lower those seen on the *fourth* day after the operation. Inflammatory action is seen to be just commencing.

24. This model represents two vaccine vesicles on the *fifth* and *sixth* days respectively. The lower of the two is the later; it has a central depression or umbilicus, its contents are becoming slightly opaque, and the red zone round it is more marked and is slightly larger than that of the upper vesicle.

25. This model represents the two vesicles as they appeared, one on the *seventh*, the other on the *eighth* day. The gradual increase in size is well marked, as well as in the intensity of the injected zone round each vesicle.

26. In this model, taken on the *ninth* day, only a single vesicle is shown, which, indeed, can now no longer be called a vesicle, as the fluid contained in it has partly passed into the condition of pus. It is particularly to be noticed that the red zone round the vaccinated spot has undergone a disproportionately great increase in size since the previous day. There is a distinct ring of injection, the circumference of which is as large as that of a shilling, and outside this a faint pinkish hue shades off into the healthy skin beyond.

VACCINIA. Three models (27 to 30) showing the appear-

ances presented by the left arm of an adult, a woman, æt. 35, at different periods after vaccination.

27. In this model three pustules are shown as they appeared on the *sixth* or *seventh* day after vaccination.* They have already attained a very large size, larger than any of those represented in the former series, and they are surrounded by a widely diffused redness, which extends completely across the intervals between the pustules.

28. In this model the same pustules are represented on the *eighth* day. They are still larger, so that one of them is as big as a sixpenny piece. Their roofs are becoming dry and acquiring a brown colour. The red blush extends downwards to the elbow. It fades off very gradually into the healthy skin.

29. This model shows the same pustules on the *ninth* day. They themselves are but little altered from the previous day, but the areola surrounding each of them is perhaps more marked, and the diffused blush of redness is still more intense, and has crept down to the forearm as well as upwards on to the shoulder.

30. VACCINIA. Model of the right shoulder and upper limb of an infant, presenting an eruption which came out after vaccination. One of the umbilicated vesicles caused by the direct introduction of the virus may be observed in the usual position. This is drying up into a crust, and the zone of redness round it is fading. Behind it there appears to be another vesicle, which has aborted. On the front of the shoulder and towards the axilla there are scattered numerous rings of a reddish-brown colour, having defined centres of healthy skin, but fading off gradually towards

* In the former catalogue it is said that this model represents the appearances seen on the sixth *and* seventh days. But Mr. Towne is clear that this is incorrect, and that the pustules were all of the same date. At first sight it might seem that the difference in size of the pustules indicated a difference of date, for the lowest is very much smaller than the other two, and of these again the posterior one is much smaller than the anterior. But exactly the same relations of size between the three pustules may also be observed in the other two models.

their periphery. There are also three vesicles on the lower part of the arm; and on the forearm numerous vesicles are scattered, which have zones of redness round them, and one of which is distinctly umbilicated.

VARICELLA OR CHICKEN-POX.

An acute contagious disease, which protects against itself, and is attended with an eruption of vesicles; these appear within the first twenty-four hours after the patient first notices that he is unwell, and very often are not preceded by any symptoms whatever. They begin as minute red spots, which rapidly pass into delicate rounded vesicles of the size of split peas, having no umbilicus. Successive crops of these vesicles come out for four or five nights. They quickly scab over, and in a day or two the scabs fall off; thus all stages of the eruption may be seen at the same time in the same patient.

31. VARICELLA accidentally occurring with VACCINIA. Model of the back and shoulders of a child, presenting a scattered vesicular eruption, which came out about three days after vaccination. The model was taken on the eighth day after the operation. Over each deltoid muscle there are two ordinary vaccine vesicles, the contents of which appear to be just becoming opaque, and each of which is surrounded by a slight areola. On the back are scattered numerous small vesicles, most of which are arranged in clusters. Some of them are in the earliest stage, others are full and round.

C. M. D—, æt. 8, was vaccinated on the 17th of May, 1834. Another child of the same family had varicella at the time. The vaccine vesicles developed in the usual way. Three days after the operation chicken-pox broke out, having exactly the same appearance as in the other child, and attended with a good deal of fever. The vaccine eruption took the ordinary course, and the pustules became "full and fine," and desquamated at the usual time.

See Mr. Aston Key's Inspection Book, p. 60.

32. VARICELLA. Model of the left side of the face of a child, æt. 10, presenting an eruption of scattered vesicles, some of which have a central depression, while others are full and rounded. They are in all stages, some just making their appearance, others beginning to have opaque contents, and even becoming confluent with their neighbours.

M. M—, æt. 12, admitted under Dr. Wilks on January 22nd, 1859, in a wretched state of emaciation and very ill. There was a loud systolic bruit, which subsequently proved to be due to disease of the mitral valve. The eruption first came on the 29th. Doubts were at first entertained as to its nature, whether it was herpes, or varicella, or even varioloid. It began on the upper lip and side of the face. Next day the face was covered, and the arms began to show it. The model was taken on the 31st (third day). Some fresh vesicles were still appearing on the outer sides of the arms. The eruption was drying up, when the girl died, on February 9th.

At the autopsy it was found that there had been old peri- and endocarditis, as well as pleurisy. The mitral valve was thickened, and there were recent granulations upon it, and upon the lining of the left auricle.

See Inspection Book, 26, 1859.

It may be observed that in this case one or two of the vesicles are umbilicated, which is said never to be the case in varicella. The great majority of them, however, are full and rounded, and the apparent umbilication may perhaps be referred to the circumstance that the vesicles which present this appearance are beginning to dry up. Another point in which the affection seems to differ from varicella, and to resemble variola, is that the vesicles appear to have been rather slow in drying up; still I think that on the whole there can be little doubt that the case really was one of varicella.

VARICELLA OR MODIFIED VARIOLA. Three models (33 to 35) taken from different children in the same family, suffering from a disease the nature of which was at the time a matter of much doubt and discussion.

33. Model of the left thigh of a boy, æt. 5 years, showing the affection on the fifth day. It consists of scattered vesicles of all sizes up to a split pea. Most of them are arranged in

clusters to some extent, and just above the knee one has been developed on a red line which was evidently a scratch. The same line also presents one or two papules, indicating the earliest stage of the affection, and other papules are scattered about. The larger vesicles are flattened, and have a central depression. Their contents are semi-opaque, and they are on the point of beginning to dry up into crusts. There is much redness of the base of some of them, which even passes across the space between adjacent vesicles.

34. Model of the right leg and foot of an infant, æt. 12 months, presenting a similar eruption, on the sixth day of its duration. The vesicles have characters exactly resembling those shown in the former model, but some of them are drying up, and others have lost their roofs and appear to be in a state of superficial ulceration. The margin of these vesicles presents a ring of superficial desquamation.

35. Model of the face of a boy, æt. 2 years, showing a similar eruption in what appears to be an early stage, but, according to the former catalogue, on the eighth day. The eruption is very scanty, and is in part still papular. The vesicles have no red base, as in the other two models; two of them are depressed in the centre.

These three children were taken ill in the early part of the year 1865, and an eruption came out which was somewhat like smallpox. They had all been vaccinated satisfactorily. The complaint was subsequently regarded as varicella, occurring under unfavorable circumstances. The children were living over a stable, in a very vitiated air.

I have been in doubt whether these models should be placed under the head of variola or under that of varicella. The characters of the eruption certainly do not altogether correspond with those of the latter disease, according to the definition which is given above, and which I have taken from the leading authorities on the subject.

TYPHUS.

An acute contagious disease, which protects against itself, characterised by an eruption which comes out from the third to the seventh day (generally on the fourth or fifth day), and consists at first of a faint, irregular, dusky-red mottling of the skin, with small, separate purple maculæ scattered over it. It is commonly termed the "mulberry rash." It appears chiefly on the trunk and on the extremities; the backs of the wrists, the borders of the axillæ, and the epigastrium being mentioned as the parts at which it may commonly be first discovered. It takes less than forty-eight hours for its full development. After a day or two it becomes ecchymotic, and it often does not entirely disappear until the twelfth or fourteenth day, or even later.

In rare cases the eruption of typhus is preceded by a rash, such as would be termed a roseola; this fades before the appearance of the other eruption characteristic of the disease. (See Reynolds' 'System of Medicine,' i, p. 584.)

36. TYPHUS. Model of the right side of the abdomen of a patient suffering from typhus, taken on the *ninth* day of the disease, when the rash had just become fully developed. The mottled character of the eruption is well shown in this model, but it is rather pale, and is less pronounced than that which is observed in the majority of cases of typhus.

The patient, G. L—, was admitted, under the care of Dr. Wilks, on January 14th, 1859. The first symptoms of illness had shown themselves on January 9th. On the two following days he was still able to go to work, but on the 12th he took to his bed. When he came into the hospital he was covered universally with a rash of bright colour, but this was slight and scarcely characteristic of the disease. On the 17th, however, it came out powerfully, and as a well-marked "mulberry rash." Subsequently it became darker, and on the 20th it no longer faded on pressure. On the 22nd it was somewhat petechial in character. After this he rapidly recovered. He took no stimulants whatever.

See Dr. Wilks' MS. notes in the former catalogue.

37. TYPHUS. Model of the right side of the abdomen of a patient affected with this disease. The maculæ are well

marked and of a dusky colour. There is also some diffused discoloration of the surface.

38. TYPHUS. Model of the right side of the abdomen of a patient suffering from typhus. The "mulberry rash" is still more evident than in the previous model, and is of a darker colour, and, indeed, has a distinctly petechial character.

No record of the case exists beyond the fact that the patient "had bowel irritation and died in the hospital."

39. TYPHUS. Model of the left ankle and foot of a man affected with typhus. The surface is thickly covered with petechial spots, which on the dorsum of the foot tend to run together into transverse lines.

No record of this case remains beyond the fact that the model was taken "during the last stage of typhus, a short time before death."

40. TYPHUS—EARLY ROSEOLA. Model of the right side of the abdomen of a patient covered universally with a finely punctated roseolous rash, with a few scattered crimson maculæ.

The patient was admitted into Lydia under the care of Dr. Wilks, in January, 1864, at the very commencement of an attack of typhus, and before the characteristic "mulberry rash" had made its appearance. She was then covered with the bright exanthem represented in this model. She remained in a very critical state for some days, but ultimately recovered. Her convalescence was very slow.

TYPHUS—EARLY ROSEOLA. Three models (41 to 43) from a case of typhus, illustrating the early roseolous eruption.

41. Model of the abdomen; this is covered with a crimson mottled rash, presenting numerous puncta, somewhat like those seen in scarlatina.

42. Model of the left forearm and hand of the same patient, which present an abundant roseolous rash of a bright crimson colour, consisting of maculæ, not arranged in any definite pattern. The dorsal surface of the hand and fingers is covered with a diffused exanthem.

43. Model of the right side of the abdomen of the same patient at a later stage, when the roseola was fading, but before the surface presented the usual mulberry rash of typhus.

The patient from whom these models were taken was a nurse in Esther Ward, and was attacked with typhus fever, for which she came under the care of Dr. Wilks, in January, 1864. She was taken suddenly ill, with rigor, sickness, fever, &c. On the fourth day of the disease she was found to be covered with a mottled rash of a bright red colour. This was very unlike the ordinary mulberry rash; but the disease was yet believed to be typhus, from the symptoms resembling those of that disease, and from there being other probabilities in favour of such a belief. In a short time the rash faded, both from the arms and from the abdomen; and subsequently the eruption of typhus showed itself, presenting the ordinary characters. The patient was exceedingly ill, sickness being a prominent symptom. Ultimately, however, she recovered.

ENTERICA. ENTERIC OR TYPHOID FEVER.

An acute disease which, although rarely, if ever, contagious in the strict sense of the term, yet spreads from one patient to others in certain ways which need not be particularised here. It affords protection against recurrence. It is characterised by an eruption of pale rose-coloured, slightly raised spots, which are more commonly seen on the abdomen and chest than on other parts. They come out from the seventh to the tenth day and in successive crops, each crop lasting a few days and then fading away. They disappear entirely under pressure. By the end of three or four weeks they are all gone.

44. ENTERIC FEVER. Model of the chest and abdomen of a child, presenting the slightly raised, scattered "rose spots," characteristic of this disease. It may be noted also that the abdomen is full and tumid.

45. ENTERIC FEVER. Model of the left side of the trunk of a young man, presenting rather large "rose spots." These are very numerous on the chest and abdomen, but there are none of them towards the back. The model was taken on the *thirteenth* day of the fever.

F. W.—, æt. 18, a nervous young man, had been three weeks in the hospital under the care of Dr. Wilks, and was supposed to be suffering from heart disease, when (on the 9th November, 1859) he was taken with febrile symptoms and epistaxis. On the 12th he was obliged to keep his bed, and was already very ill, so that it was thought that he must be suffering from pneumonia or one of the other exanthemata, rather than from enteric fever. On the 16th (7th day of the fever) a few pink spots were first observed on the skin; on the 18th about twenty were counted, and on the 20th there were 100 of them. His face was irregularly flushed, and it was even thought that it had some spots upon it, but this was doubtful. There was great congestion of the lungs, so that the spots had a somewhat livid colour; and as the breathing became worse the skin became generally dusky, so that the rash might have been mistaken for the mulberry rash of typhus. The spots, however, still disappeared on pressure.

He died on the 26th November, the 18th day of the fever.

See Reports of P.M. Examinations, 1857, No. 208. Preparation of Intestine, 1844[24].

CHOLERA.

An acute disease which is rarely, if ever, contagious in the strict sense of the term, but which spreads from one patient to others in certain ways that need not be specified here. As a rule it is not attended with any eruption upon the skin, but during the febrile stage, which follows the collapse, a rash comes out in some cases, which has the characters of a roseola.

ROSEOLA CHOLERICA. Two models (46 and 47) from a young woman, in whom a roseolous rash appeared during convalescence from cholera.

46. This model represents the outer and back part of the left arm and forearm, over which the eruption is scattered.

47. This model, representing the back of the lower part of the forearm and hand, shows that these parts were covered still more thickly than the upper parts of the limb with roseola in the form of spots and patches, which have run together so as to leave between them but a few small islets of healthy skin.

It is remarked by Dr. Wilks that the rash is very like that seen in some cases of acute urticaria, occurring in children, and attended with febrile symptoms.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. iii, p. 345.

48. ROSEOLA CHOLERICA. Model of the outer and flexor surfaces of the right forearm, and of parts of both surfaces of the hand, of a patient affected with this form of roseola. On the forearm the rash consists of isolated papules, some of which are no larger than the rose spots of enteric fever. Towards the wrist these are much larger and coalesce together, and there is also on the back of the wrist and all over the hand a diffused, mottled, scarlet rash, very like what is seen in early cases of scarlatina.

The patient was a young woman, æt. 20, who was admitted in a state of collapse on September 2nd, 1854. The rash appeared on the 19th, when she was convalescent.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. iii, p. 345,

ROSEOLA CHOLERICA. Two models (49 and 50) from a patient affected with an extreme degree of this rash in an advanced stage.

49. Model of the left side of the trunk, from above the left nipple to below the umbilicus. The whole surface is seen to be vividly injected and of an intense crimson colour.

50. Model of the left elbow, showing the same injection of the minute cutaneous vessels, which, however, is not uniformly intense over the whole surface, so that a somewhat mottled appearance is produced. The colour is more dusky and purple than in the former model.

The patient was a young man, æt. 26, admitted into the cholera ward on August 2nd, 1854, having then been ill for three days. On the 10th he became covered with roseolous patches resembling those represented in models 46 and 47. These rapidly faded, and were succeeded by a general fine rash, resembling the rash of scarlatina. This was not raised above the surface, was of a purplish hue, and had a somewhat purpuric character, like that of a scarlatina maligna. However, it subsided in due course, and by the 18th the skin was desquamating, exactly as though the disease had been scarlet fever.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. iii, p. 346.

EQUINIA OR GLANDERS.

An acute disease arising by infection from the horse, ass, or mule. It is attended with an eruption which is at first papular, but which very quickly develops into large flat pustules; they are surrounded by deep red areolæ, and a diffused erythematous blush often covers large parts of the surface. Furunculi and subcutaneous abscesses are also frequent. I do not find that writers give any precise information as to the period of the disease at which the eruption appears, but it would seem from the cases which follow that it may come out either a few days after the patient is taken ill or not until the ninth day.

EQUINIA. Two models (51 and 52) from a patient affected with glanders.

51. Model of the abdomen, showing the eruption in a very early stage. It consists chiefly of rather flat papules, which are scattered somewhat thickly over the surface. It may be noticed that there is a disposition for them to be grouped in pairs, or three or four together. Some of them are already suppurating at their summits, forming flat pustules with narrow but bright red areolæ.

52. Model of the right side of the face, neck, and chest of the same patient, showing the eruption at a later period. The pustules are flat, and some of them are still in a very early stage, but most of them have increased greatly in size and are as large as sixpenny pieces. On the neck some have run together, forming bullæ of very irregular form. There is a broad areola around each of them. One or two of them have ruptured and are discharging a thin fluid. On the chest, and also on the upper lip, there are rounded red swellings resembling furunculi.

Sydney W—, æt. 23, was admitted into Accident Ward under Mr. Birkett's care on March 13th, 1867. He was a horse-slaughterer at Plumstead. He had lived freely, but had had good health. Six days before his admission he had cut the back of the right thumb badly;

the wound bled freely. He experienced no inconvenience from it for three days, when (on the 10th) pain began in the thumb, and extended up the arm to the axilla. At the same time he noticed a numbing pain in the calf of the right leg. His appetite remained good, and there was so little constitutional disturbance that he went as usual to superintend the work which the accident had prevented his carrying out personally. Next day (March 11th) the pain in the arm was worse, and that in the leg extended up the thigh. A day later still he was so indisposed as to be unable to stand, and on the 13th (as already stated) he came into the hospital.

On admission he said he felt extremely ill, and that he was unable to stand, his limbs feeling almost paralysed. He had constant rigors, a burning skin, and a white tongue; his pulse was 120. The wound in the hand was inflamed; the calf of the right leg and the thigh were swollen. Incisions were made at the parts where fluctuation was felt, and matter was evacuated, with much relief. The case was supposed to be simply one of pyæmia. On the 14th fresh abscesses were opened upon the arms and legs. He took his food well and all the support that was ordered for him. On the 15th he was more feeble, and had frequent vomiting. On the 16th he was extremely low and his manner excited. Brandy was ordered for him, and a large abscess was opened on the thigh. On the 17th and 18th fresh abscesses appeared on the limbs and body.

On the 19th an eruption began to appear on the limbs and body. This showed that the case was a peculiar one; the history was gone into again from the commencement, and the conclusion was arrived at that the disease was glanders. The eruption, when first seen, was somewhat like that of varicella, consisting of about twenty vesicles, with slightly opaque contents, scattered over the face, chest, and abdomen.

Towards the evening of the 19th he became delirious, and then, for the first time, his breathing was short and difficult, and a bloody mucus was seen obstructing the nostrils; this became profuse during the next few hours. The vesicles also increased in size and numbers. He died on the 20th.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. vii, p. 304.

EQUINIA. Two models (53 and 54) from a young man affected with glanders in an early stage.

53. Model of the head, neck, and chest of this patient. The eruption consists of flat, semi-opaque vesicles, which are either isolated or arranged in pairs, or three together. The largest is of about the size and shape of a kidney-bean, upon the forehead; others are not larger than peas, or even than

millet seeds; on the chest a few are still in the stage of papules. Most of them are surrounded by angry-looking red areolæ, and there is also much diffused redness of the right side of the neck, right cheek, and eyelids. The eyelids are, moreover, considerably swollen.

54. Model of the right upper limb from the same case. This presents small scattered vesicles and papules, very like those upon the face. There is very great redness and swelling of the back of the hand and wrist, and the same condition also extends, in a less degree, throughout the whole length of the forearm, and is very marked over the elbow.

The young man was admitted under the care of Dr. Barlow in February, 1862. He had been working at a cornchandler's, and had charge of three horses, but did not know that there were any of them ill. When admitted he was in a febrile condition, and it was not very clear whether he had typhus or typhoid fever, or whether some other specific complaint was about to appear. In a day or two pains in the joints came on, as in rheumatism, and the skin had a sour odour. Subsequently the joints became swollen, red, and more painful; and the case was then supposed to be one of pyæmia. At the end of the week some pustules first began to come out upon the body, and it then appeared probable that the complaint from which he was suffering was glanders.

A day or two after this the disease became well developed, so that no doubt could exist about its nature. The patient was exceedingly ill. His whole body was covered with opaque vesicles or pustules, reminding one somewhat of those of varicella, surrounded by inflamed areolæ. The face, arms, and legs were all alike covered. There was also inflammation of large tracts of the skin and subcutaneous tissue, forming red bumps raised above the rest of the surface. No fluctuation could be detected, although pus was, no doubt, in process of formation. The face was much swollen. The right eye was quite closed, and a thin discharge ran from it as well as from the nose. He was very restless, and was at times delirious, rising from his bed and throwing off his clothes. He was freely supplied with wine, brandy, and nourishment, but the swellings on the body grew larger and the pustules more numerous, and he rapidly died.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. viii, p. 266.

EQUINIA. Two models (55 and 56) from a man affected with glanders.

55. Model of the face, neck, and chest of this patient. The skin of the face is reddened and swollen, this being particularly marked upon the ears. Scattered over the surface are some vesicles and bullæ of various sizes—some not bigger than peas, others as big as shillings. They are all flattened in form; the larger ones have slightly depressed centres, from which in many instances a sanguineous discharge is escaping. On the chest there are one or two ill-defined spots of erythematous redness.

56. Model of the left upper limb of the same patient. This presents numerous flattened vesico-pustules and bullæ, from the size of peas to that of sixpenny-pieces. Some of them have ruptured and are discharging a blood-stained fluid. One or two of them are seated upon broad red swellings of the subcutaneous tissues, resembling furunculi. On the outer surface of the arm there appears to be a large abscess. There is much diffused redness at various parts.

The patient, E. B—, æt. 50, was assistant to a veterinary surgeon in the Borough. On March 12th, 1861, he called in Mr. Ebsworth, of Trinity Square, and stated that he had been ailing for some days with a bilious attack. A day or two later he complained of a pain in the calf of the leg, and a swelling was found there; subsequently other swellings appeared in various parts of the body, as well as pustules. He took to his bed and had considerable fever, but no rigors. Mr. Ebsworth, believing that the disease was glanders, asked Dr. Wilks to see him on the 19th. It appeared that the man had been attending a glandered horse, but that he had not injured any part of his body so as to offer an opportunity for the absorption of the poison.

On different parts of the body there were numerous lumps or tumefactions of various degrees of hardness, some feeling almost like tumours, while others were evidently abscesses. A very large deep-seated, firm lump could be felt in the calf of the right leg. On the left forearm there was a swelling of the size of an egg, containing matter. Smaller swellings of a purplish tint were scattered elsewhere. The face was free, and there was no discharge from the nostrils.

The number of vesicles increased during the next two days, and they also became larger. His voice became hoarse, and he snored when he breathed, as though the mucous membrane of the nose were swollen. He grew deaf and drowsy, with tremors and twitchings of the limbs. On the 22nd of March he died. A discharge from the nose was observed a few hours before his death.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. vii, p. 305.

57. EQUINIA. Model of the head, chest, and shoulders of a man affected with glanders. Numerous pustules, some of them flattened, but others full and round, are scattered over all parts of the surface. On the arms there are some rounded red swellings, evidently due to inflammation of the subcutaneous tissues. The skin of the face presents much diffused redness and swelling, giving the features a bloated appearance. There is much yellow discharge from the nostrils and mouth and from between the eyelids; this is said to have been of an offensive character.

Thomas W—, æt. 21, was admitted into Philip Ward, under the care of Mr. Morgan, on November 27th, 1837, for acute synovitis of the left knee, caused by its having been squeezed between two barrels. On Dec. 2nd, however, he had rigors. His skin was hot and dry and his tongue furred, but his pulse was quiet, and it does not appear that the amount of constitutional disturbance was greater than might have been due to the joint affection. On the 3rd there was a slight discharge from the right eye, and several faint spots were seen over the face and body. On the 4th some of the spots became vesicular, and it was supposed that the eruption was one of modified smallpox. On the 5th the eye had become very much swollen and painful, and there was increased discharge from it. There was also a sero-purulent discharge from the nose. His head was painful, and he was at times delirious.

Fresh spots continued to come out. On the 7th several purple spots were noticed on the lower limbs, of about the size of fourpenny pieces, with indurated bases. These afterwards increased in size. All the symptoms increased in severity. The tongue became swollen and covered with a black fur. On the 8th he was seen by "Dr. Addison, who thought, from the appearance and peculiarity of the eruption, that it resembled more the eruption peculiar to glanders; but not having seen a case of this disease, he stated that he could not confidently decide as to its nature."

The patient died the same night.

Subsequently Mr. Denham, then Mr. Morgan's dresser, ascertained that the man had been taking care of a sick horse which had farcy, but was said to be "rapidly recovering" from that disease. It still, however, had a muco-purulent discharge from the nose, and two or three swellings on the legs, one of which was discharging slightly. It could not be ascertained that the patient had been bitten by this horse.

See the 'London Medical Gazette,' xxi, 1837, p. 549.

See also Dr. Hughes' paper in the 'Guy's Hospital Reports,' series ii, vol. i, p. 119.

58. EQUINIA (?). Ulceration of the forehead and of the side of the face and lobule of the ear (? due to infection from a horse affected with glanders).

Model of the left side of the face of a patient, showing on the forehead a large ulcer of the size of a five shilling piece, with a yellow surface and a narrow red border, very much raised above the level of the rest of the skin. The lobule of the ear presents a shallow yellowish ulcer, and just in front of this there are two smaller ulcers. All these are irregular in form and much elongated in their vertical axis, and they appear to have had rather thick edges.

Richard G—, æt. 25, was a patient in Philip Ward in June, 1834. His occupation was that of a groom, and he had been accustomed to dress a horse which was affected with running at the nose and was supposed to have glanders. The sore on his forehead began six months before his admission, and about three weeks later other sores broke out about the parotid glands. The sores "came first with a pimple, and gradually extended. He suffered from pain in his head across the coronal suture. He had never had syphilis and had been temperate. The sores had been treated in the country with nitric acid. The young man looked emaciated, and complained of lassitude, but not of any pain."

See Mr. Aston Key's Inspection Book, p. 63.

59. EQUINIA (? ?). Ulceration of the back of the hand, attributed to infection with the poison of glanders.

Model of the back of the left hand of a young person, showing a large ulcer, with an uneven yellow surface, thick edges, rather an irregular outline, and much dull redness of the skin around it, from which the cuticle is peeling in thin scales.

SYPHILIS.

A contagious disease which protects against itself, and so far resembles the exanthemata, but which differs from them in running a chronic course and in the very great variety of the cutaneous effects which are produced by it.

I. The direct effect of the inoculation of syphilis is generally the development of an ulcer with an indurated base,—or, as it is called, a *hard chancre*,—at the seat of inoculation.

We have no models of chancres on the parts where they are most frequently found (the genital organs). But in the following model one is represented on the lip; and, in a subsequent model, another is shown upon the thumb.

60. CHANCRE ON THE LOWER LIP. Model of the lower part of the face of a patient. The left side of the lower lip forms a prominent rounded sore, with a sharply defined edge, and a surface which is yellow except where it is covered with a crust of dried blood.

The patient was under Mr. Durham's care.

II. Sooner or later after the appearance of the chancre an eruption develops itself over the body generally. This may present a great variety of appearances. There are, in fact, many forms of syphilodermata, as they are called.

Until recently each of these was usually called by the name of the simple cutaneous affection which most resembled it, with the prefix "syphilitic" to mark its nature; thus writers spoke of a syphilitic lepra, a syphilitic lichen, &c., &c. It was even supposed that the difference between the appearances caused by syphilis affecting the skin in different cases could be attributed directly to the constitution of the patient; for instance, that a patient who inherited a tendency to simple lepra (or, as we now call the disease, psoriasis) would present a syphilitic lepra—that one who was otherwise disposed to be affected with a papular rash would have a syphilitic lichen, and so on. Observation shows, however, that this is not the case; indeed, at present I believe that nothing is known of the causes which produce one rather than another syphilitic eruption, excepting that patients who are in a bad state of health are most likely to have those forms which show most tendency to suppuration and ulceration. Another objection to the use of the names syphilitic lichen, lepra, &c., is that these eruptions, however difficult *in particular cases* it may sometimes be to distinguish them from non-syphilitic affections, still *in the aggregate* always present characters which show that they are distinct; and again, they are connected in different cases by intermediate forms much more closely than the simple eruptions, and in the same case much more frequently pass into one another in the course of time.

In the study of syphilitic affections of the skin (or syphilodermata, as they are called) some classification is evidently necessary, and I believe that the best division is that into two main groups suggested by M. Hardy. The first group consists of eruptions which are scattered widely over the surface, of which the individual elements

(macules, papules, &c.) are isolated, which affect only the superficial layers of the cutis, and which (with one exception) leave no cicatrix when they subside. These affections appear usually within six weeks or two months after the appearance of the primary chancre. They may last from three to six months, or a year. They may therefore be termed *early syphilodermata.** They do not all show themselves in the same case; indeed, not more than one or two of them generally appear in each patient, but sometimes three or four are said to have been observed. The order in which the different forms then successively appear is more or less that which is adopted in the following enumeration of them:

1. Macular or early exanthematic (syphilitic roseola).
2. Papular (syphilitic lichen).
3. Vesicular.
4. Pustular (syphilitic acne and ecthyma).
5. Squamous (syphilitic lepra).
6. Early circinated.
7. Pigmentary.

The second group consists of affections which are limited to certain parts of the skin, of which the individual elements tend to cohere or run together, which almost invariably affect the deeper layers of the cutis (as well as the superficial), and which are followed by distinct cicatrices. They may be called the *late syphilodermata*, since they generally do not appear until a year or a year and a half after contagion, while they may extend over a period of from three to twenty years, or even longer. It probably seldom happens that more than one variety of the late syphilodermata is seen in the same patient, consequently the order adopted in the following enumeration of them is rather that of their severity than that of their occurrence:

8. Late macular.
9. Late squamous (syphilitic "psoriasis palmaris" and "ps. plantaris").
10. Tubercular (syphilitic "lupus").
11. Suppurating, "encrusted," or ulcerating (syphilitic "impetigo" and syphilitic "rupia").

MACULAR OR EARLY EXANTHEMATIC SYPHILODERMA.

This is one of the most frequent of all the syphilitic eruptions, and

* Hardy terms them "secondary" and the other group "tertiary;" but I think it is better to avoid the use of these words, which have been employed by English writers in a different sense.

I believe that it always comes out early, if at all. It may be easily overlooked if not searched for, and some writers have supposed that in reality it occurs in every case. It is found principally on the chest, abdomen, flanks, and inner surfaces of the limbs. It quickly disappears under treatment, and even (in many cases) without treatment. Its characters are exceedingly well displayed in the first of the two following models.

SYPHILIS; CHANCRE ON THUMB; MACULAR and PAPULAR SYPHILODERMA (SYPHILITIC ROSEOLA and LICHEN). Two models (61 and 62) from a patient affected with secondary syphilis, the primary chancre yet remaining unhealed.

The patient, Martha S—, æt. 52, was nursing an infant with a sore on its nates, when she cut her thumb, and inoculated the wound from the sore. Besides the secondary eruption, she suffered from sore throat, &c. She was under the care of Mr. Birkett in February, 1868.

61. The first model represents the anterior surfaces of the right hand and forearm. Over the flexure of the phalangeal joint of the thumb there is an ulcer as large as a fourpenny piece, with a granulating base, and thick, rounded, purple edges, beyond which the cuticle is peeling off. On the forearm there is a scattered macular rash, here and there slightly papular in character. The maculæ are ill-defined, and of a reddish-brown colour. The eruption may be taken as an excellent example of the macular affection which most commonly appears as the earliest manifestation of syphilis after the chancre, and which is the mildest of all the syphilodermata.

62. In this model the same parts are represented as they appeared at a later stage (? modified by treatment). The chancre on the thumb is now rather larger than before. Its edge, however, is very much less thickened. Its floor looks dry, and is covered with yellow exudation. The rash upon the forearm appears to be on the decline. The maculæ have faded to a considerable extent, but there are still numerous papules, which now constitute the most marked feature of the eruption.

63. EXANTHEMATIC SYPHILODERMA? (SYPHILITIC ROSEOLA?). Model of the left arm and hand of a patient, presenting an

eruption which differs altogether from the affection ordinarily designated as an exanthematic syphiloderma (syphilitic roseola), but which yet can receive no other designation unless it be supposed that it really was a simple roseola, and that its occurrence in a person affected with syphilis was merely an accident.

The back of the hand and lower part of the forearm are covered with raised spots and patches of a deep crimson colour, varying considerably in size, but some of them nearly as large as half-crown pieces, these, however, being of very irregular form, and perhaps produced by the confluence of several originally distinct spots.

No record of this case is preserved beyond the fact that the patient was a woman, who was in the Clinical Ward in 1865, under the care of Dr. Wilks.

PAPULAR SYPHILODERMA (SYPHILITIC LICHEN).

Of this there are two distinct forms, which differ in the size of the papules. One may be termed the small or miliary papular, the other the large or lenticular papular syphiloderma. The former is a very common eruption; it differs from all the other early syphilodermata in leaving cicatrices. The papules are always seated round the mouths of hair-follicles. They are often arranged in clusters, they are apt to become scaly at the summits, and (still more frequently) they are after a time surrounded by a slight scaly rim or border; not unfrequently they suppurate, and when this occurs it may be said that the papular syphiloderma passes into what will be described further on as the acneiform pustular syphiloderma.

In the large or lenticular papular syphiloderma the papules are sometimes of so great a size that they might really be fairly called tubercles. This affection is illustrated by models 72, 73, 74.

64. Papular Syphiloderma. Model of the right side of the abdomen of a young person, which is thickly covered with minute papules of a reddish-brown colour. These are isolated from one another, and are not arranged in clusters. Some of them are becoming vesicles, or (more probably) vesico-pustules.

65. PAPULAR SYPHILODERMA. Model of the face of a male patient, which is covered with this eruption. The papules are small, and of a reddish-brown colour. Some of them are isolated, others are collected in clusters, or even running together to form masses of indefinite character.. Some of the papules on the nose appear to have passed into vesicles, others are distinctly pustular, and some have already become covered with thin scabs.

66. PAPULAR SYPHILODERMA. Model of the outer surface of the right arm and of the extensor surface of the forearm of an adult patient, covered with an eruption of scattered brown papules, a few of which are suppurating at their apices, while others have got injured by friction or scratching, and are covered with crusts of dried blood. At some points there is a tendency for the papules to be collected into clusters. There are also some indefinite patches on which the cuticle is rough and desquamating.

67. PAPULAR SYPHILODERMA. Model of the anterior surface of the left arm and forearm of an adult patient, presenting an eruption of brown papules, some of which show a tendency to desquamate at their summits. Other papules appear to have subsided, leaving brown stains behind them. On the upper arm they are most numerous over the biceps muscle, and they are very thick over the bend of the elbow, but on the forearm they are almost confined to the skin over the muscles arising from the external condyle.

68. PAPULAR SYPHILODERMA. Model of the front of the right elbow and forearm, apparently of a female patient, presenting an abundant eruption of papules, some of which are suppurating at their summits, while others are slightly scaly. A few are isolated, but the majority are collected in irregular groups or clusters, resting upon a base which is of a uniform brown colour. The papules themselves are of a reddish-brown hue. At two or three spots minute points may be observed of a darker brown hue, arranged in clusters very similar to the clusters of papules. These, I believe, represent papules which had become obsolete.

69. PAPULAR SYPHILODERMA. Model of the inner surface of the left elbow of a patient, presenting irregular patches of a dark brown hue, which may very fairly be termed "copper coloured," on some of which are scattered papules closely aggregated together, so as even to be almost confluent. The origin of the deep brown patches is not very evident. I should be inclined to suppose that the papules had formerly been more numerous than they were when the model was taken; that, in fact, the eruption was at that time on the decline.

70. PAPULAR SYPHILODERMA. Model of the left side of a patient's back, covered with clusters of papules, some of which were becoming pustular or even vesicular. Others, again, had subsided, leaving behind them reddish-brown stains, the clustered arrangement of which is still very evident.

71. PAPULAR SYPHILODERMA. Model of the upper part of the left side of the abdomen, on which are scattered numerous clusters of minute brown maculæ, not raised above the surface. The number of maculæ contained in each cluster is from five to fifty; the skin forming the base of each cluster is of a paler brown hue. Each macula arose from the subsidence of a papule.

The appearances represented in this model should be carefully studied, as they are perfectly characteristic of syphilis. At a still later stage the maculæ would have faded and given rise to minute white cicatrices, the clustered arrangement of which and their small size would also have enabled the syphilitic origin of the affection to be determined.

Compare Model 83 with this model.

72. PAPULAR, passing into SQUAMOUS SYPHILODERMA. Model of the left upper arm and extensor surface of the forearm, presenting scattered red papules. Some of them are quite small, while others are of all sizes up to that of a sixpenny piece; these larger ones no longer have the character of papules, but are scaly and such as would receive the designation of syphilitic lepra.

73. PAPULAR, passing into SQUAMOUS SYPHILODERMA. Model of part of the anterior surface of the right arm and forearm of a patient, which are thickly covered with an eruption of brown papules, most of them of large size and covered at their summits with a white scale. In the bend of the elbow are some larger squamous patches of irregular form, which probably arose by the fusion of several of the papules together. It will be observed that the scales are very much more scanty and less thick than in most cases of simple psoriasis.

74. PAPULAR SYPHILODERMA. Model of the back of the left hand and part of the forearm of a woman, on which are scattered numerous reddish-brown papules, almost all isolated from one another, and some of them suppurating at their summits. Between the papules there are some small ill-defined maculæ, also of a reddish-brown colour. These, no doubt, represent the first stage of the affection. Some of the papules are of no great size, but, as a rule, the affection corresponds with that which I have described as the large or lenticular papular syphiloderma In the former catalogue the model was entitled syphilitic tubercle.

75. PAPULAR AND SQUAMOUS SYPHILODERMA. Model of part of the right upper arm and forearm of a patient, over which is scattered a syphilitic eruption of mixed character. The earliest stage of it appears to be papular, for about the middle of the forearm there is a single smooth papule, which was doubtless of recent development. As the papules enlarge they form scaly spots. Some of them afterwards become inflamed, and when the scales separate from them a moist oozing surface is exposed; others die away, leaving reddish stains, with some desquamation of the cuticle round them.

The patient was in Esther Ward (at that time the syphilitic ward), under the care of Mr. Poland.

VESICULAR SYPHILODERMA.

This is described by Hardy as occurring in three distinct forms, which he calls respectively eczematous, varioliform, and herpetiform. We have no models to illustrate either of them.

PUSTULAR SYPHILODERMA.

This, again, is described by systematic writers as occurring in several different forms, but of these the only ones which need be mentioned here are two, the acneiform and the ecthymatous. The former of these is, I believe, always developed out of the miliary papular syphiloderma; it is illustrated by models 64, 65, 70. The latter is represented in the following models.

76. PUSTULAR (ECTHYMATOUS) SYPHILODERMA. Model of the back of the right elbow and forearm of a patient, presenting an eruption the earliest stages of which are probably seen in certain scattered minute red maculæ towards the wrist, and in a few small pustules which may be observed near the elbow. The greater part of the eruption, however, consists of greyish-brown crusts of about the size of peas, which are surrounded by zones of a reddish-brown colour, most of them nearly as large as fourpenny pieces. Two or three of the crusts have fallen off, leaving simple stains of a reddish-brown colour. On the elbow some of the spots are running together, to form patches of irregular form.

77. PUSTULAR (ECTHYMATOUS) SYPHILODERMA? Model of part of the left shoulder and outer side of the arm of an adult, presenting scattered vesico-pustules (at one spot aggregated together into an irregular patch) and crusts of very varied form. Some of the crusts are circular, and had apparently arisen by centrifugal extension from a single original pustule; others are of very irregular shapes, and evidently arose from at least two or three centres. On the shoulder and also on the arm there are scattered some black points which look like papules that have had their summits scratched off.

In the former catalogue this model is placed among those which illustrate the syphilitic eruptions; but it is entitled "ecthyma cachecticum with rupia," and the remark is made that the eruption occurred "probably after syphilis." Possibly, therefore, it may not have been syphilitic, and the question of its having been scabies or the result of the

irritation caused by pediculi must not be left out of consideration. Against the view that it might have been scabies it may be noted that the fold of the axilla is quite free, which is one of the parts where that affection causes a very abundant eruption. But the model certainly looks to me like one of an eruption in which there had been severe itching.

78. SYPHILODERMA of indefinite character (? PAPULAR, passing into PUSTULAR). Model of the back of the right hand and forearm of a patient, over which is scattered a syphiloderma of very ill-defined characters. It appears to be essentially papular, distinct isolated papules hardly bigger than pins' heads being present at certain points. In other places it seems to be passing into a pustular affection; this was probably due to suppuration of the apices of the papules. In other places, again, the papules are becoming coherent, so as to form patches the size of a fourpenny piece.

Over the metacarpo-phalangeal joints of the fore and little fingers, and over the side of the forefinger itself, there are ordinary warts (verrucæ). Upon the wrist and the adjacent parts of the back of the hand and forearm there are three or four elevations of the surface, which are rough and scaly looking on the surface, and appear to be somewhat intermediate in character between the warts and the syphilitic patches. The former catalogue probably refers to these when it describes the eruption as consisting of "syphilitic tubercles, becoming warty."

79. PUSTULAR SYPHILODERMA. Model representing the face of a patient on which are numerous scattered crusts, and brownish stains where crusts had formerly existed, but had become detached. These are of no great size, and their characters are so little defined that it is scarcely possible to give the affection a definite name. But perhaps on that very account the model is of value, as showing how vague is the appearance of many syphilitic eruptions.

There is no history of the case beyond the fact that the patient was a man and had had syphilis.

80. PUSTULAR (ECTHYMATOUS) SYPHILODERMA. Model of the face of a patient affected with an eruption which I think must have been really syphilitic, although the writer of the former catalogue regarded it as an "ecthyma cachecticum." The affection is already in a somewhat advanced stage. The pustules have dried up into thick yellowish-brown crusts, which are doubtless considerably larger than the pustules originally were, showing that the affection had extended centrifugally. The bases of most of the larger crusts are raised and present free edges, as though the skin beneath the crusts had been destroyed by ulceration.

The patient was a woman, twenty-nine years of age, and was admitted into Charity Ward, under Mr. Morgan's care, in January, 1840, with ulcerated legs. It is not stated whether there was any evidence of her having had syphilis, but it is said that she "appeared to be a strumous subject, and had been under the influence of mercury."

A week after her admission the eruption represented in the model appeared on the face, head, and legs. Afterwards the hands became affected, but the body remained free from it. The treatment consisted in the administration of iodide of potassium, alteratives, and anodynes. She was well when she left the hospital. Two years before, she had had a similar eruption; she was then under the care of Mr. Key.

SQUAMOUS SYPHILODERMA.

Different authorities have expressed very different opinions with regard to this form of eruption. By the older writers "syphilitic lepra" was spoken of as one of the commonest of all syphilitic affections of the skin, but more careful observation has shown that in a very large proportion of the cases to which this name was formerly given the affection was not primarily squamous, but became so only secondarily; and more recent writers have even gone so far as to omit the squamous syphiloderma altogether from their descriptions of syphilis. (It must be understood that I am not now referring to the well-known affection of the palms of the hands—the psoriasis palmaris of writers,—but to a squamous affection scattered over the surface like a simple psoriasis.) In several of the following models there is reason to believe that the affection was not primarily squamous; and I may remark in passing that the possibility of determining this now is an admirable proof of the truthfulness with which the artist has followed nature in his representations, for in the former catalogue the models

in question were simply styled syphilitic lepra, and I believe that there was then no question of their belonging to any other form of syphilitic eruption.

SQUAMOUS SYPHILODERMA. Two models (81 and 82) from a patient suffering under syphilis, showing a very characteristic example of the so-called syphilitic lepra in different stages.

81. Model of the outer side of the right arm and forearm, on which are scattered numerous spots and patches, which are very slightly squamous on the surface and of a colour very like that of raw ham. These vary greatly in size; the smaller ones are circular, whereas the largest are of very irregular form, and were evidently formed by the coalescence of several originally distinct spots.

82. Model of the same part at a later stage. The patches and spots are now seen to have faded, assuming a "lurid" brownish-red colour. They are no longer raised above the surface, and their borders (which were never sharply defined) now shade off very gradually into the surrounding skin. Many of them now present minute puncta of a darker colour, scattered rather uniformly over their surface. These puncta undoubtedly represent papules that have receded, and their presence is very suggestive, as showing that even in this case, which may be taken as an unusually typical example of a "syphilitic lepra," the affection is by no means purely squamous.

83. SQUAMOUS SYPHILODERMA. Model of the right side of the abdomen of an adult patient, showing a number of raised patches, of irregular form and of reddish-brown colour, presenting scanty scales. At one part near the centre of the model there is a stain, evidently corresponding with an older patch which had subsided before the model was taken; this has the punctated character which a papular syphiloderma always leaves behind it, and it may probably be taken as an indication that in this instance, as in most others, the affection

was not primarily squamous, and therefore that it would really be incorrect to designate it a "syphilitic lepra."

Compare, for instance, model 71.

84. SQUAMOUS SYPHILODERMA. Model of the back of the left elbow, forearm, and hand of an adult, presenting a number of large ill-defined patches of a dusky purple colour, and slightly squamous in character. There appears to have been much loss of flesh.

This model, again, was in the former catalogue styled syphilitic lepra, but I doubt very much whether the eruption was originally of a squamous character.

85. SQUAMOUS SYPHILODERMA ?? Model of the side of the right buttock and of the outer part of the thigh of a child seven years old, presenting scattered spots of a brownish-red colour. The smallest of them are scarcely larger than pins' heads, and appear to have been injured by scratching; the larger ones present thin scales.

No record of this case has been preserved. In the former catalogue the model is designated lepra syphilitica. Mr. Towne, however, informs me that the child was under the care of Dr. Oldham, and that the eruption was supposed to have been the result of *inherited* syphilis, the father having had that disease. For my own part, I feel great doubt as to the real nature of the case. The catalogue speaks of the dingy hue of the scaly patches; and formerly great stress was laid upon this character, as indicating the syphilitic nature of eruptions of all kinds. But the fact is that in simple psoriasis the colour of the eruption is often exactly such as is represented in the model. And some years ago physicians used commonly to attribute to an inherited syphilitic taint cases which we should now regard as typical instances of psoriasis. I am therefore disposed to think that the case under consideration was really one of this disease, particularly as the child was at the very age at which it is particularly apt to break out for the first time.

EARLY CIRCINATED SYPHILODERMA.

This is one of the rarer manifestations of syphilis, and I believe it was first described by M. Hardy, who regarded it as a variety of the squamous form of syphiloderma. It is characterised especially by

the delicacy and minuteness of the rings, far surpassing in this respect those of any other circinated eruption.

86. EARLY CIRCINATED SYPHILODERMA. Model of the face of a young woman, which is covered with delicate reddish rings of all sizes, from that of a split pea to that of a shilling. Some of them are running together, forming somewhat complicated patterns. The rings are narrow; most of them are slightly scaly; the spaces enclosed within them are nearly of the colour of the rest of the skin. All parts of the face are affected except the nose and the upper part of the forehead.

The patient, S. M—, æt. 21, a servant, came as an out-patient under my care. She asserted that she had acquired syphilitic sores six weeks before, and that the eruption broke out a week later on her face and neck. At the end of another week she said that she began to have a sore throat, and lost her voice.

The eruption subsided very quickly under appropriate treatment.

87. EARLY CIRCINATED SYPHILODERMA. Model of the face of a young man, presenting numerous small and very narrow red rings and portions of rings, some of which are contained in others. Some parts of them are slightly scaly.

William T—, æt. 24, was admitted under Dr. Moxon's care on December 12th, 1867. He had had a chancre nine months before. This was followed by swelling of the inguinal and cervical glands, and by an eruption which first appeared six weeks before his admission.

Over the whole body there was scattered a red macular rash, and there were also numerous papules, and on the scalp many pustules. On the face, particularly on the forehead, there were numerous thread-like rings; they were but slightly raised, and they varied considerably in size, the smallest being one eighth of an inch in diameter, while the largest one measured half an inch. This had within it a second smaller ring a quarter of an inch in diameter.

The eruption underwent but little change until December 30th, but after that time it slowly faded, and by January 20th it had entirely disappeared. Mercury was not at first prescribed for him, but he afterwards took the bichloride—for how long does not clearly appear.

The following models appear to be less typical instances of the eruption now under consideration.

88. CIRCINATED SYPHILODERMA. Model of the anterior

surface of the right forearm and part of the arm of a patient (apparently a female), presenting an eruption consisting of brownish rings, one of which is an inch and a half in diameter. Some of the rings are imperfect, and they all show a tendency to break up into the papules. They are slightly scaly. The portion of skin enclosed in the rings is generally of the same colour as the healthy integument around, but the largest one has in its centre an indefinite group of flattened papules.

In the former catalogue this model was designated syphilitic lepra.

89. CIRCINATED SYPHILODERMA? Model of the right side of the abdomen of a patient, presenting a number of small rings of reddish colour, some of them incomplete. Upon the borders of some of them there are what seem to be small pustules, but this is only apparent; the eruption was really rather of a squamous character.

The patient was a medical man, who consulted Dr. Wilks and was by him sent to me. There was no history of syphilis, and we were very doubtful whether the eruption was really of specific origin, but it was ultimately quickly cured by a mercurial course.

PIGMENTARY SYPHILODERMA.

This also is a very rare affection, and it was, I believe, first described by M. Hardy. He speaks of it as consisting of spots of a marked *café au lait* colour, of the size of half-franc or franc pieces, with irregular edges, situated near one another, and becoming confluent so as to circumscribe patches of healthy skin. They are not raised and are unattended with desquamation, heat, or itching. This form of syphiloderma is seen especially on the neck and front of the chest, and its occurrence is almost confined to the female sex.

PIGMENTARY SYPHILODERMA. Two models (90 and 91) from a patient affected with this eruption. They afford admirable illustrations of it, and show the accuracy of M. Hardy's description.

90. Model of the right side of the chest and of the right breast and shoulder. The whole skin is of a dark olive-green

colour, and over this are scattered brownish-black maculæ, some isolated, others running together to form an irregular pattern. The areola and nipple are very dark.

91. Model of part of the flexor surfaces of the right arm and forearm of the same patient. The skin of these parts is universally stained of a deep olive-green colour. On the upper arm there are small spots and rings of a dark brown hue. On the front of the forearm this darker tint preponderates, the paler olive colour being reduced to small islets.

The patient, Catherine N—, æt. 50, came under the care of Dr. Barlow, in Martha Ward, in July, 1856. She was sent to the hospital under the supposition that she was suffering from Addison's disease, her whole body being covered with dark brown patches. Another view taken of the affection was that it should be styled a pityriasis nigra.

Eight months before her admission she had had syphilis, with sore throat and iritis. Afterwards a number of red spots appeared on her arms; these became darker until they assumed the appearance represented in the models. Her health also suffered considerably.

Under tonic treatment she gradually got better, when she was again attacked by iritis, for which she was removed to the Eye-Ward. She ultimately left the hospital in October, 1856. At that time the stains were much fainter.

See drawings 159[78], 159[79].

LATE MACULAR SYPHILODERMA.

I have already stated that the late syphilodermata may be arranged according to the depth to which they attack the cutaneous tissues. And, accordingly, we may first take a very rare variety, which is scarcely more than macular. I do not know that the affection in question has ever been described, but I have seen a striking example of it in one patient, from whom the following model was taken. The best idea of its characters that I could give would be by comparing it with the affection commonly seen on the gluteal regions in infants affected with inherited syphilis. In fact, the patient to whom I have referred presented smooth reddish-brown patches, which were very like those so commonly seen in syphilitic infants, and which had a glazed or shining appearance hardly represented in the model, but rendering the resemblance still more striking.

92. EXANTHEMATOUS LATE SYPHILODERMA. Model of the face of a woman, presenting a syphilitic eruption of somewhat unusual characters. This consists of tolerably well-defined spots and patches of a reddish brown or brown colour, scattered here and there over the surface; they are scarcely if at all raised, and present not the slightest "tubercular" character; the cuticle is desquamating slightly from their surface. All parts of the face are more or less thickly covered with them, but the central parts of the cheeks are comparatively free.

Emma W—, æt. 48, was admitted into Clinical Ward under my care on April 27th, 1869. Twenty years before, when first married, she had acquired syphilis, and several of her children inherited it and died. She had no eruption about the body, but a bad sore throat. The present affection began four or five years ago on her cheek, and then on the forehead "in the form of a rough red ring."

On admission the skin of her face was extensively discoloured; the right cheek presented a large, slightly raised patch, of a yellow-red colour, quite smooth, and in part more glazy than the rest of the surface. It enclosed one or two islets of healthy skin. On the left cheek there was a horseshoe-shaped patch. She had taken much mercury and had been salivated. She was ordered Potass. Chloratis, gr. x, ex Decoct. Sarsæ, t. d. The eruption very slowly faded away. She was discharged from the hospital on June 2nd, but continued for some time to attend as an out-patient. I may remark that before she came to me she had been under the care of one of the surgeons at the Hospital for Skin-diseases, who had regarded the affection as a modification of lupus.

LATE SQUAMOUS SYPHILODERMA.

In syphilis it is very common for the skin of the palms and soles to become roughened and scaly, and even fissured. This often occurs in a very advanced stage of the disease, when no other signs of it are present, but sometimes it is seen at a much earlier period. Thus by some writers the "syphilitic psoriasis palmaris" has been described as holding a somewhat intermediate position between the early and the late syphilodermata. I may, indeed, observe that its *characters* are also somewhat intermediate, for, while it is limited to definite parts of the surface, it has but little tendency to produce cicatrices. In some cases syphilitic affections of the palms and soles present modifications which are deserving of study.

Thus, sometimes they occur in the form of small, round, horny plates, not raised above the surface, surrounded by reddish-brown areolæ; sometimes they form ulcerating zones or circles. In cases such as these the adjacent skin is generally more or less squamous, but they ought hardly to be classed with the common "syphilitic psoriasis" of the palms, being, in fact, other forms of syphiloderma, modified by the anatomical peculiarities of the skin of these parts.

PALMAR AND PLANTAR SQUAMOUS SYPHILODERMA, WITH THICKENING OF THE NAILS. Three models (93 to 95) from a patient affected with a squamous affection of the palms and soles, believed to be of syphilitic origin.

93. Model of the palm of the left hand, presenting three irregular squamous patches, tolerably well defined in outline, with some reddening of the skin. The thick, brown, hooked extremities of the nails of the fore, middle, and little fingers are also shown.

94. Model of the back of the same hand, showing the state of the nails; these are converted into thick, brown, claw-like masses, much raised above the level of the finger ends and very rough. Those of the thumb and ring finger differ somewhat from the others in appearance, being more like healthy nails, particularly towards their roots, where their surface is almost smooth. The folds of skin over the roots of all the nails are thickened, and the cuticle near them shows a tendency to desquamation.

95. Model of the sole of the left foot of the same patient. The anterior half of the sole is covered with a thick greyish-yellow horny substance, which is traversed by one or two rather deep fissures. The edge of the diseased part is perfectly well defined. The heel presents a similar affection, and so do some of the toes. The nail of the little toe is much thickened.

S. B—, æt. 30, living at Epsom, admitted into Clinical Ward, under my care, on March 25th, 1869. She is a married woman; she has had two children, both alive; she has never miscarried.

She denies ever having had syphilis. Excepting the affections of the skin and nails, the only symptoms which she acknowledges, and which could be ascribed to a syphilitic taint, are occasional sore throats and

frequent severe frontal headaches. She states, however, that in July last year she washed for a lodger whom she afterwards discovered to be "ill." In the course of the same month she noticed a soreness at the root of the nail, and at the tip of the thumb of her right hand. A week later she found that her other thumb and all her fingers were becoming affected in a similar way. In about a month or six weeks the toe-nails also became affected, and at this time she observed that her finger-nails were obviously growing thicker. Soon the heels and the plantar surfaces of the toes, as well as the palms of the hands, became thick, scaly, and cracked.

On admission she appeared a healthy-looking woman, but said that she had lately suffered from sudden general sweats and flushings of her face. Her tongue was slightly furred and brown.

The nails of the fingers were raised into thick, black, rounded, narrowed, claw-like bodies, projecting perhaps a quarter of an inch above the dorsal surface of the fingers. Towards their roots they were paler, being of a yellowish colour, but they were quite opaque, and very rough, but without any definite striæ such as are sometimes seen. The folds of skin over the roots of the nails were slightly thicker than natural, and tender, but not inflamed. At the other end of the matrix the disease sometimes seemed to extend from the nail itself to the skin over the pulp of the finger (or thumb, as the case might be).

The toe-nails were also very thick and prominent, except that of the second toe of the left foot.

The palms of the hands presented rough and chappy patches; and the skin round these was redder and smoother than natural, but without definite macules.

The cuticle of each heel, and also of the anterior half of the sole of each foot, was thick, forming large scaly patches, with rather deep fissures in some places. There was a good deal of tenderness on pressure, especially on the heels. There was also some pruritus.

Both the uvula and the lateral regions of the throat were decidedly reddened.

On April 10th the clinical clerk, Mr. Mallam, shaved down several of the nails and applied some diluted Ung. Hydrargyri about their roots. This application was continued, and she took Potass. Iodid. gr. iij, ex Mist. Hydrarg. Bichlor. ℥j, t. d.

On the 16th she complained of great headache, faintness, and giddiness. The gums were sore, and she had a metallic taste in her mouth. To omit her medicine, and to wash her mouth with a gargle containing Tinct. Iodinii ℥ss ad Aq. Oss.

On the 19th her mouth was well, and she resumed her medicine.

April 26th.—"The palms of the hands are much better. There is only one patch on each hand at all scaly; all the others are merely dry stains. The feet also are much improved. The nail has come off the

right little toe, leaving an apparently healthy surface. To discontinue the ointment: ℞ Glycerini Amyli, ʒj; Camphoræ, ℈j; Sp. Vin. Rectif., q. s., "to be applied to the affected parts."

On May 8th she was seized in the evening with a sharp attack of laryngitis, attended with great restlessness and a croupy cough.

On May 12th she was well enough to resume the Mist. Hydrarg. Bichloridi. "While she was so ill she omitted to use the Glycer. Amyli, and her feet became very irritable. She has now resumed it, and they are much better."

On May 18th she left the hospital much relieved, so far as her hands and feet were concerned. "The palms are nearly well and the fingers are much less irritable. The finger-nails appear to be growing much more healthily from their roots."

She continued to attend as an out-patient, and on June 9th her nails are noted to be "coming up more healthily. The palms are quite well; the feet still very sore."

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 558.

TUBERCULAR SYPHILODERMA.

I have already stated that in some forms of papular syphiloderma the papules are so large that they might fairly be called tubercles (as, in fact, they very often have been called). The affection now to be considered is, however, of a different character; in it the tubercles, instead of being isolated, are collected together into clusters, or rings, or patches. When they disappear, even if there may have been no breach of surface, they always leave cicatrices. They occur especially on the face (where they constitute the chief forms of what was formerly termed syphilitic lupus), shoulders, back, and extensor surfaces of the limbs.

96. Tubercular Syphiloderma. Model of the face of a boy, on which are scattered numerous well-defined red patches of very irregular form. They are but little raised; their surface is dry and scaly, except at one or two spots, where slight incrustation has occurred. On the chin is a single tubercle as big as a pea. On the right cheek there are scattered some isolated red spots, of papular character. The tint of the eruption is very characteristic of syphilis, and so is its occurring upon the forehead, lips, and nose, rather than upon the cheeks. Otherwise there are some parts, the appearance of which is rather suggestive of lupus.

In the former catalogue the boy is said to have been "affected with venereal tubercles and blotch; with ulceration on a strumous skin."

See Drawing 140.

97. TUBERCULAR SYPHILODERMA. Model of the face of a woman, over which reddish-brown tubercles are scattered so thickly that they are in some places confluent. These are very abundant on the forehead, nose, lips, and chin; on the cheeks there are but few of them. Their colour is very characteristic.

There is no history of this woman, and I am not quite sure whether it was not really an early eruption and whether (in spite of the size of the "tubercles") one ought not rather to class the affection with the papular syphilodermata. The appearances presented by other parts of the body would doubtless have aided one in deciding as to the true character of the eruption.

98. TUBERCULAR SYPHILODERMA. Model of the face of a man, presenting a syphilitic eruption of very severe character. The tubercles are of a deep red colour and very much raised above the surface, and many of them are as large as beans. They are aggregated together into large masses upon the forehead between the eyebrows and upon the tip of the nose, and there are numbers of them upon the left cheek and upper lip. Isolated ones are scattered also over other parts of the face.

The same remarks may be made upon this as upon the previous model.

99. TUBERCULAR SYPHILODERMA. Model of the face of a woman, presenting a number of depressed pale spots of round or irregular form, the margins of which are raised and present scattered red tubercular elevations. The depressed spots are described in the former catalogue as "superficial ulcerations," but they look as if they had already healed, and should rather be termed cicatrices. They are most numerous on the nose and lips, but there are two over the middle of the left cheek, and there is one in

the left eyebrow. It should be particularly noted that there are large ones just in the angles between the nose and cheek, for these are very frequent seats of syphilitic affections having the character represented in the model.

The woman had had syphilis, and the disease was cured by iodide of potassium.

In the former catalogue this model was placed at the head of those which were intended to illustrate lupus, and this although the fact that the patient had had syphilis is expressly stated, and also the fact that the disease was cured by iodide of potassium. There is, however, a note in Dr. Wilks' handwriting that Dr. Gull believed the affection to have been "tertiary syphilis." It is evident that, as in the case of the affections which were designated impetigo and rupia by the compiler of the catalogue, so in the case of lupus, it was not at that time considered advisable to draw a sharp line of demarcation between the cutaneous affections which were the remote effects of syphilis and those which had no such origin.

The remaining forms of late syphilodermata present characters which in individual cases are distinctive enough, but which in the aggregate offer great resistance to classification. Many of them are developed from affections which were at first tubercular, but this is by no means necessarily the case. As a rule they present, in a marked degree, all the characters of late, as contrasted with early, syphilodermata; but there is an exception in the rupial forms, for these start from a number of isolated centres, spreading centrifugally, and generally showing no tendency to run together.

100. Serpiginous Syphiloderma. Model of the lower part of the back and of the buttocks of a man, presenting a narrow zone of semicircular form which stretches from the back of the anal fissure outwards to the left buttock, passes upwards to the left loin, curves round over the spine to the right loin, and ends over the right buttock. It is slightly festooned, and is interrupted here and there by a narrow interval of healthy skin. Its surface is red, moist, and oozing, the rete mucosum being exposed, probably by the removal

of crusts which most likely had covered it. There is slight exfoliation of the cuticle on both sides of the zone. The surface within is somewhat pigmented; this is, doubtless, an indication that the zone was once smaller than now, and was spreading centrifugally at the time when the model was made.

The patient, E. D—, æt. 44, came under observation on June 21st, 1834. He had had the eruption for five years. He had had syphilis twenty years before, for which he took large quantities of mercury. A bubo on the left side suppurated, and continued to discharge for several months, leaving a cicatrix seven inches long. He afterwards had a gleet which lasted seven months. He was at first a wood-turner, and afterwards became a messenger at the India House, in which capacity he frequently made long and rapid journeys on foot and afterwards exposed himself to cold.

His general health was good; his appetite was natural. He had never been a drinker or addicted to spirits. The chief inconvenience which he suffered was from itching. There was occasionally a prodigious discharge from the eruption, after which it would dry up and remain dry for some time. He had never been under medical treatment for it.

In the former catalogue this model was designated "Ecthyma ? Impetigo;" and, although the fact that the patient had had syphilis twenty years back is mentioned, it does not appear that the eruption was regarded as a direct result of that disease. I venture to say, however, that there is hardly any cutaneous affection which is more characteristic of syphilis than such a one as this, and I feel confident that it would at once have been cured by full doses of iodide of potassium, had that remedy been known at the time when the case came under observation. Unfortunately there is no record of the progress of the case after the time when the model was made.

See Mr. Key's Inspection Book, p. 62.

101. SERPIGINOUS ULCERATING SYPHILODERMA. Model representing a part of the front of the neck and chest of a patient affected with one of the *late* syphilitic eruptions in a very characteristic form. Two patches are seen of a dull reddish-brown colour, and upon them are scattered yellowish-brown

crusts, formed from the drying up of some among the pustules that had formed. Others of these pustules have terminated, not in incrustation, but in open ulceration, extending down into the subcutaneous tissue, and the ulcers have run together, forming patches of horse-shoe shape. Besides the two principal patches, there is a separate ulcer having the same characteristic figure, and at the upper part of the model are ordinary crusts having the characters of an ecthyma, that is, having apparently been formed by centrifugal extension from a single centre.

In the former catalogue this model is placed under the heading of "Ecthyma Cachecticum," but it is expressly stated that the patient had had syphilis.

102. Ulcerating and Encrusted Syphiloderma of Face (Syphilitic Impetigo). Model of the face of a man, presenting irregular ulcers on the forehead, eyebrows, and cheek, which are most of them covered with crusts of a dark or greenish-black colour.

Remarks.—In the former catalogue this model is designated lupus. There is unfortunately no history of the case. But I venture to think that the affection was clearly of a syphilitic origin. The model is a very old one, and probably at the time when it was made the use of iodide of potassium in such cases was not known. The remarks made to Model 99 appear to be fairly applicable to the one now under consideration. In the former catalogue, indeed, the two models were placed next to one another.

Ulcerating Syphiloderma of Nose. Two models (103 and 104) from a woman in whom the tip of the nose was destroyed by ulceration.

103. In this model the place where the tip of the nose should be is occupied by a large cavity, the edge of which is everted, giving it somewhat of the form of a trumpet. The skin round is somewhat reddened. The floor of the ulcer is in great part covered with crusts of dried blood. The nasal cavities open into it by apertures of nearly the size of the

natural nostrils. The cartilaginous septum is destroyed, but not the bony one.

104. Model of the same patient's face after the ulcer had been cured. The skin forming the upper margin of the ulcer has fallen in, so as to form a comparatively narrow aperture, which is communicating with the nasal cavities.

The patient, Martha N—, æt. 33, was admitted under Mr. Cock's care in October, 1860. She was a soldier's widow. She said that, about two years before, some pimples came out on her nose, which were styled impetiginous. The nose afterwards swelled and became livid. Three weeks before her admission it "broke," and ulceration then began to advance rapidly. When she was admitted the nose is described as being of a purplish colour, "the whole of its lower part destroyed, as well as the septum; the whole appearing like a piece of raw flesh projecting from the face."

"Mr. Cock rubbed it all over with strong nitric acid. In a few days it put on a healthy appearance, and by Christmas time it was quite healed."

Remarks.—In the former catalogue this model is designated "lupus exedens or rodent ulcer." But I think it is evident that it presents none of the characters belonging to either of these diseases, and I have no doubt in my own mind that it was the result of a long-standing syphilitic taint. I remember seeing at Vienna a case which was the facsimile of this; it occurred in a Polish Jew, and was found to be syphilitic.

Compare this with models 118, 119.

Pustular (Ecthymatous) Syphiloderma. Three models (105 to 107) from a patient affected with a remarkably severe and acute form of syphilitic eruption, which, although it appears from the history of the case to have occurred at a *late* period of the disease, nevertheless occurs in the form of scattered, isolated pustules and crusts.

105. Model of the patient's face, on which are scattered several rounded pustules, the smallest of which are larger than millet seeds, while the largest might fairly be called bullæ, being of the size of a sixpenny piece. Pus was evidently formed in them in large quantity, for the larger ones were already dry-

ing up into very thick crusts of a yellowish-brown colour, and some of these were becoming coherent, especially on the forehead and on the right cheek. There was not much redness round most of the recent pustules, but the skin of the eyelids and over the bridge of the nose was very greatly reddened and swollen, so that the eyes appear to have been closed, almost as in erysipelas. This model was taken on the fourth day of the eruption.

106. Model of the face of the same patient a few days later. The forehead, nose, and cheeks are now covered with an almost uniform mask of yellowish-brown crusts, of great thickness, presenting conical elevations here and there, which, doubtless, correspond with the sites of some of the original pustules. The diseased surface is surrounded by a sharply defined border, and is separated from the hairy scalp by a zone of healthy skin, which is not even reddened; a similar zone of healthy skin bounds the crusts on each side of the face and below the chin. It may also be remarked that the palpebral apertures and the mouth and nostrils are all free from crusts. The eyelids, however, are still very red and much swollen. Both the upper and the lower lip present irregular raised patches, which may be said to be "tubercular" in character.

107. Model of the outer part of the left elbow and back of the forearm and wrist of the same patient, on which parts are seated seven ulcers, of irregularly rounded form, with granulating floors and raised white edges, each surrounded by a narrow red halo. The largest ulcer is rather larger than a five-shilling piece. It is stated that these ulcers corresponded with the "places where vesication had occurred." They were doubtless originally covered with crusts, like those represented in the last model.

The patient was a woman, admitted under Mr. Bryant's care on January 20th, 1862, suffering from a tertiary sore on her leg. The affection represented in these models made its appearance on March 11th. The first model was made on March 15th. The arms presented but little of the eruption as compared with the face.

108. ENCRUSTED SYPHILODERMA. Model of the back of the left

forearm and hand of a man, presenting a remarkable instance of this eruption (as it appears to be) in an early stage. It consists of a number of isolated pustules, one or two of which have simply dried up into crusts. Most of them, however, have gone on spreading centrifugally, while their centres have either dried up or fallen into a state of ulceration. In this way there have arisen several unhealthy looking sores of considerable depth, surrounded by broad red zones, with edges of exfoliating cuticle.

C. S—, æt. 32, was admitted into Philip Ward under the care of Dr. Gull on January 31st, 1856. He was a sailor, and had been in all parts of the world. He had been very intemperate, had had syphilis many times, and had taken much mercury. He appeared to have suffered from constitutional symptoms (of syphilis?) for three years. He was in a very cachectic condition, and his voice was hoarse. The forearms and legs presented the eruption shown in the model, as to which Dr. Gull was in doubt whether it should be called a syphilitic ecthyma or a rupia escharotica. On the 28th he was attacked with such severe dyspnœa that tracheotomy had to be performed by Mr. Callaway. He died two days afterwards with pulmonary symptoms.

At the post-mortem examination, besides the sores upon the arms and legs, it was noticed that there were fissured sores upon the scrotum. The laryngeal disease was found to be an abscess in the substance of its posterior wall, which had partially destroyed the posterior parts of the vocal cords. There was also an ulcer below the vocal cords. The viscera appear not to have presented any syphilitic lesions.

It may be observed that there is a clear similarity between the vesicles in this case and those represented in model 200, in which the disease was certainly non-syphilitic. It may, therefore, still be a question whether, in spite of the history of venereal disease and the fatal termination of the case by laryngeal inflammation, the affection was not really simple.

109. RUPIAL SYPHILODERMA? Model of the right forearm, apparently of a young person, presenting several conical crusts of a brown colour, evidently formed by centrifugal extension; the skin round them is of a brown colour. There are also one or two brown stains, where other crusts had fallen off.

The appearance of the affection is such as strongly to

suggest that this eruption was a syphiloderma, but there is no record of the case to show whether it was so or not. In the former catalogue the model is designated "rupia simplex;" but the two varieties of the disease then recognised were called respectively "R. simplex" and "R. prominens," and I do not think that the epithet was intended to imply that the eruption was "simple" rather than "specific," as might be supposed from the ordinary use of the term at the present day.

110. RUPIAL SYPHILODERMA? Model of the face of a man, presenting several conical crusts, with striated surface, evidently formed by the slow drying up of the secretion from a sore which was undergoing gradual centrifugal extension. They are very like limpet shells. There is no trace of symmetry in their arrangement.

There can be no doubt, I think, that this affection was syphilitic, although in the former catalogue it was not placed among the models illustrating syphilis. But, as we have seen, many eruptions of admittedly syphilitic origin were there included among the non-specific diseases.

111. ECTHYMATOUS SYPHILODERMA. Model of the face of a woman, presenting greenish crusts of enormous size and thickness, some massed together irregularly, but others presenting distinct indications of their formation by centrifugal extension. They are especially marked on the eyebrows, nose, chin, and sides of the face, and their arrangement is imperfectly symmetrical. The forehead and other parts of the face, which are at present free from crusts, also exhibit a diffused redness which terminates in a defined festooned border.

This model was made many years ago by M. de Lestre; it and 476 are the only ones in the whole collection which are not the work of Mr. Towne. I believe that there can be no doubt as to the syphilitic nature of the affection, although in the former catalogue the model was not placed among those representing syphilitic diseases.

112. RUPIAL SYPHILODERMA. Model of part of a forearm, on

the extensor surface of which there is a single large conical crust, of brown colour, and with concentric markings, affording a beautiful example of the limpet-like crusts of rupia. At its margin the crust may be observed to be slightly imbedded or let into the skin, which is evidently ulcerated beneath the crust.

The syphilitic nature of this affection, again, appears to me to be indubitable.

113. RUPIAL and ULCERATING SYPHILODERMA? Model of part of the front of the left thigh of a patient, showing at the upper part a raised crust, which may be fairly called rupial, and below it a large ulcer with coarse granulations. The surface of this ulcer appears to have been exposed by the falling off of a crust, part of which, however, still remains attached to its centre.

I think that there can be little doubt that this affection also was syphilitic.

114. TUBERCULAR, RUPIAL, and ULCERATING SYPHILODERMA. Model of the face and neck of a man, presenting a syphilitic eruption of mixed character, but of great severity. The spots of most recent formation are some on the cheeks (especially the right cheek), which appear as scattered tubercular elevations, of dusky red colour. Next should, perhaps, be taken the isolated crusts of a brown colour and irregular form, which may be observed on the root of the nose, on the right cheek, &c. It is not improbable that these were originally formed out of tubercles, which became incrusted at their summits and fell victims to spreading inflammation. On the left side of the neck may be seen a part of an ulcerating and incrusted zone, with a centre of healthy skin. Such zones are very common in cases of old syphilitic disease, and are highly characteristic of that malady. In the moustache is an irregular mass of brown crusts, of no very definite character, but which are also just such as are very often seen in this situation in cases of long-standing syphilis. Lastly, on the forehead there are several open ulcers, with defined borders of most irregular form, shelving down to a considerable depth.

In the former catalogue it is stated that the patient from whom this model was taken had had his "constitution damaged by syphilis, &c.," but the affection is nevertheless classed with non-syphilitic eruptions, as an example of rupia. I believe that the appearances represented in the model are perfectly characteristic of syphilis, and deserving of the most careful study. At the present day, when the proper remedies for advanced syphilis are well understood, the right diagnosis of a case of this kind is of the greatest possible importance.

115. INCRUSTED and ULCERATING (RUPIAL) SYPHILODERMA. Model of the front of the right leg of a patient, on which are scattered a number of brownish-black crusts, more or less circular in form, and varying in size from that of a split pea to that of a five-shilling piece or larger. There is nothing to show how they began to form, except that near the upper part of the model there are two or three small reddish-brown stains; these may have been spots which had aborted, and they may originally have appeared as papules, or even as pustules. Most of the crusts are surrounded by narrow zones of a dark purplish-brown colour, and all the larger ones display a distinctly ulcerated border, evidently due to the fact that the erosion of the skin forming their base was going on too rapidly for the enlargement of the crust to keep pace with it. Indeed, there are two or three open ulcers, which also doubtless were originally formed beneath crusts, but from which these crusts had fallen off. The crusts are somewhat raised above the level of the rest of the skin, but by no means to such an extent as in cases of what would be regarded as typical "syphilitic rupia."

116. INCRUSTED (RUPIAL) and SERPIGINOUS SYPHILODERMA. Model of the shoulders and of the whole of the back of a man, from the neck to the gluteal regions. Scattered over this large surface are a number of syphilitic crusts and ulcers. The most recent of them probably are shown at the lower part of the model, in the form of rounded crusts, somewhat conical in shape and of the size of shillings or less.

Higher up the crusts attain enormous sizes, some of them being three or four inches in diameter. A few of them were evidently formed by centrifugal extension from a single primary spot. But in the case of most of them this is very doubtful, for they rather present the appearance of enormous rings or segments of circles, having within them areas of healthy skin. The crusts are mostly of a dark brown colour, and some of them are exceedingly massive. Beneath most of them ulceration is evidently going on, and there are some rather deep ulcers, which are pouring out pus freely. In the middle of the back is a raw-looking oval patch, nearly as large as the palm of one's hand, from which a crust has apparently just been detached, so that the rete mucosum is exposed.

GUMMOUS ULCERATION OF THE SKIN.

Another syphilitic affection remains to be described which, after a time, causes ulceration of the skin itself, but which rather begins with the formation of a gumma in the subcutaneous tissue. Of this the following model appears to be an example.

117. ? Gummous Ulceration of the Skin. Model of the left shoulder and upper limb of a woman, which are covered with tumours, many of them ulcerating at their summits. The earliest stage of the affection is, perhaps, that shown on the back of the hand and forearm, where there are a number of small elevations of the surface, such as would generally be called tubercles; these are not reddened, and they are very indefinite in character. But the main character of the disease is afforded by the presence of very much larger swellings, which are thickly scattered over almost all parts of the surface, some reaching the size of a plum; they are flattened, and appear to be situated in the subcutaneous tissue rather than in the skin; some of them are of a pale red colour; all the larger ones are ulcerating at their summits, the ulcers being sharply defined and generally circular in form; most of them appear to be secreting a thin pus. Over the clavicle is one very much larger ulcer, more than two inches

in diameter, with a very thick raised edge and a slightly ash-coloured surface.

No history has been preserved of this case.

The affection represented in this model is a very remarkable one, and the name I have given to it is somewhat conjectural. In the former catalogue it received the designation of frambœsia; this, which is evidently a mistake, no doubt arose from the circumstance that the author knew frambœsia chiefly from Willan and Bateman's account of it, for that affection is now described as being characterised by "reddish, spongy, papillary excrescences, with lobulated granulations disintegrating on the surface, weeping, but seldom ulcerating." (See Kaposi's chapter on "Frambœsia" in the third volume of the Sydenham Society's translation of Hebra's work, and, still better, a Portrait—No. xli—published by the same Society in the year 1874.)

It is therefore clear that the model under consideration does not represent the disease which is now known as frambœsia or endemic verrugas (of Peru). And it may be observed that the former catalogue gives as synonymous with frambœsia the terms "yaws" and "sibbens." Now, the former of these terms was applied to a disease which was supposed to be endemic in America, the latter to one which prevailed in Scotland; but it has been shown that the "sibbens" was a form of syphilis, and it is believed that this was the case likewise with the "yaws." Accordingly it seems to me in the highest degree probable that the affection represented in the model was really also syphilitic.

The following models may perhaps more fitly be placed under "Syphilis" than under any other head.

118. Sloughing Phagedæna of Lips, Nose, &c. Model of the face of a woman affected with spreading ulceration. The angles of the mouth are completely destroyed, being represented by two wide ulcerating cavities, with red everted edges, and a floor which is in part yellow, in part covered with blackish sloughs. The lower lip between these ulcers is swollen and everted, but not ulcerated. The whole of the upper lip has been destroyed; a sloughing surface extends directly from the gums of the upper teeth to the under surface of the nose, the tip of which is flattened out, and, having lost its support, has fallen in upon the sloughing mass. The nostrils are

completely destroyed, except the anterior edge of the right one, the position of which can just be made out. The ulceration also extends upwards on each side between the nose and the cheek, forming a deep sloughing cavity on the left side, while on the right the diseased surface is covered with a crust. On the right side the nose and the cheek are connected together by a little bridge of skin. The margins of the ulcerated surfaces are deeply reddened and swollen, but the skin shows no indication whatever of having been the seat of any new growth, such as would have been present in lupus.

The patient from which this model was taken was under Mr. Bransby Cooper's care in 1830. She was about twenty-five years old. "She denied all knowledge of syphilis or mercury."

The nature of the case is very obscure. This, perhaps, is partly due to the absence of a good clinical history of the patient. In the former catalogue the model is entitled "lupus exedens," but I think it is certain that the affection had nothing to do with the disease which is now called lupus. In spite of the patient's denial, one cannot help suspecting that it may have been indirectly due to syphilis, neglected or treated with the lowering measures that were at that time employed. Is it possible that the affection began in a chancre on the lip, and that the case thus bears the same relation to that represented in model 60, that a case of sloughing phagedæna of the penis bears to one of an ordinary chancre affecting the same part?

119. PHAGEDÆNA OF NOSE AND FACE. Model of the face of a woman, presenting a large excavated ulcer. This has destroyed the whole of the nose, except that part which immediately surrounds the two nostrils; this (curiously enough) remains intact. The nasal cavity is laid bare by an opening of the size of a shilling; the turbinated bones are visible, and the mucous membrane is much reddened; the septum has disappeared. The rest of the floor of the ulcer is covered with an eschar of yellow or blackish colour. The disease is spreading on to each cheek, and upwards on to the forehead; it has destroyed the internal canthus of the right

eye, and is close to that of the left eye. There is extensive reddening of the skin round the ulcer, but no indication of any chronic growth, such as exists in lupus.

The patient, who was about thirty-two years of age, was in the hospital in 1830.

This model, like the preceding one, was entitled lupus exedens in the former catalogue, but that name can certainly not be given to it now. It is worthy of notice that the two cases occurred in the hospital in the same year.

INHERITED SYPHILIS.

As might be expected, the effects of syphilis transmitted from the parent vary widely in different cases, but, as a rule, the cutaneous affections do not appear in such well-defined forms as when syphilis is directly acquired. The spots are often little more than maculæ, which desquamate irregularly; but they tend to run together, and thus in some respects imitate the later forms of syphilodermata rather than the earlier. Ulcers and cicatrices, too, are not uncommon. Bullæ are sometimes formed, constituting the affection which is known as pemphigus neonatorum. Occasionally squamous rings are developed, very similar to those which occur in the form above described as the early circinated syphiloderma.

The common macular eruption almost always breaks out within a period from the third week to the second month after birth.

1. The following models represent the various affections produced by inherited syphilis in infants:

120. Inherited Syphilis. Model of an infant whose whole body is covered with an eruption due to inherited syphilis. This is especially marked about the nates and genitals, and round the mouth, which parts are well known to be the seats of election for this eruption. These parts are of a reddish-brown colour, moist and raw looking, or covered with thin scabs. Round the mouth there are also numerous fissures. The cuticle is peeling off other parts of the body in small thin flakes.

It may also be noticed that the child is much emaciated, that its conjunctivæ are affected with catarrhal inflammation, and its nostrils obstructed with crusts, &c. It therefore lies with its mouth widely open, in order to breathe comfortably. The skin has lost its elasticity, and lies in folds about its limbs.

The child was brought to the hospital as an out-patient under the care of Dr. Addison, by its mother, in June, 1834. It was then seven or eight weeks old. It was apparently healthy when born, the only circumstance that attracted notice being that the "placenta actually fell to pieces, as if in an advanced stage of decomposition." The eruption appeared three weeks after birth. The child only remained one week under Dr. Addison's observation. It appeared to derive benefit from his treatment. The mother, however, did not come afterwards, "and consequently the model could not be entirely finished. It is proper to observe that the woman always denied having had syphilis."

See Mr. Key's Inspection Book, p. 62.

121. INHERITED SYPHILIS. Model of the head, neck, and shoulder of an infant, presenting a diffused syphilitic eruption. This is especially marked round the mouth, the lips being swollen, red, scaly, and fissured. A similar condition extends on to either cheek; and the scalp, shoulder, and chest, are affected in a like manner.

122. INHERITED SYPHILIS. Model of the face of a child, showing small pale red maculæ upon the lips, cheeks, and eyelids.

The child, James C—, was two months old when the model was taken. The eruption first appeared when the child was five weeks old. The mother had three other children. Two of them were boys, and they had a similar eruption at the same period after birth. The third, a girl, was said not to have had it until she was six months old. The mother confessed that she had had venereal disease nine years before.

123. INHERITED SYPHILIS. Model of the back, buttocks, and lower limbs of an infant affected with this disease. On the back there are scattered brown maculæ, some of them running together to form an irregular pattern, with the cuticle peeling off here and there in thin scales. The

gluteal regions are covered with a nearly uniform eruption, of a similar colour, and also slightly scaly. The inner sides of the thighs are moist and raw looking, and so is the scrotum, which can be seen between them, and looks swollen and flabby. The calves of the legs also present brown spots, and the soles of the foot are reddened.

124. INHERITED SYPHILIS. Model of the left upper limb and shoulder of an infant, presenting numerous pale, reddish-brown patches, each of about the size of a fourpenny or sixpenny piece. Their outline is rather indefinite, but most of them present at their periphery a more or less complete ring of vesicles, some of which are becoming yellow and opaque.

The eruption represented in this model is a very peculiar one, and I cannot say that I should be able, from its appearance, to speak confidently of its syphilitic nature. The former catalogue, however, is very precise upon the point, and also assigns a distinct cause for the vesicular affection, which it designates herpes. "The infant's arm," it says, "presents circular dull red discoloration of syphilitic origin; at the circumference of these blotches are minute vesicles, arising from ill health consequent on the mother's milk." It is much to be regretted that no history of the case has been preserved, so that it is impossible now to tell on what grounds it was regarded as the result of inherited taint. But, knowing how great stress was formerly laid upon the *colour* of eruptions as indicating their syphilitic nature, I cannot help suspecting that the colour of this one may have been the reason for such a view having been taken of it—a reason which would, in my opinion, be insufficient to establish that conclusion.

INHERITED SYPHILIS (CIRCINATED SQUAMOUS SYPHILODERMA). Two models (125 and 126) from an infant affected with inherited syphilis.

125. Model of the right upper limb, showing at the flexure of the elbow an irregularly circinated patch, which, appa-

rently, arose by the confluence of two or three rings originally distinct. It is formed by a narrow red border, which is slightly scaly. The pectoral and axillary regions present a red papular rash, which seems to be simply a strophulus.

126. This model shows the face and left side of the neck of the same child. These parts present numerous scattered circles and segments of circles. One very distinct ring may be observed on each side, just at the angle between the nose and the cheek. There are others close to the external canthus of the left eye. On the side of the neck they are numerous.

E. A—, æt. 13 months, was one of nine children of the same parents. The last two had died, æt. 6 weeks and 3 weeks respectively, with eruption on gluteal regions, &c. The mother says that in the second of them the cutaneous affection was like that in the child now under observation. At the age of 6 months it became affected with an eruption, which after a time went away under treatment, probably by Hyd. c. Cretâ. Three weeks ago the present eruption appeared.

In addition to the affection represented in the models, there were ulcerating mucous patches at the anus.

Under treatment the eruption got better.

127. INHERITED SYPHILIS (CIRCINATED SQUAMOUS SYPHILODERMA). Model of the posterior and inner surfaces of the right lower limb of an infant, presenting several rings and segments of rings of a rose-red colour, from which the cuticle is peeling off in slight white scales. The whole of the sole of the foot is slightly reddened, and is separated from the dorsum by a well-defined border of a deeper red colour.

The child was two years old at the time when this model was made.

128. INHERITED SYPHILIS (PAPULAR AND BULLOUS SYPHILODERMA). Model of the left lower limb of an infant, covered with an eruption. This, in its earliest stage, consists of isolated raised maculæ and papules, of a yellow-red colour. Some of them are becoming vesicular, other vesicles of older date have ruptured and discharged their contents, and their

floors are covered with reddish-brown crusts or look moist and red, the rete mucosum being exposed. There are also three bullæ, as large as fourpenny or sixpenny pieces, with translucent fluid in their interior, surrounded by little, if any, red halo. On the back of the foot two other blebs have burst, and their roofs are falling in.

The infant was about 6 months old, and (according to the former catalogue) had "general syphilitic blotch. After a few days the condition represented presented itself. The child ultimately died. The father had syphilis."

2. But the effects of inherited syphilis are by no means confined to the period of infancy. Older children occasionally suffer from them; the disease may then assume somewhat the character of the more remote effects of acquired syphilis; deep ulcers and encrusted patches form on the skin, sloughing ulcers appear on the palate and destroy it, and nodes are often developed upon the bones. Of eruptions belonging to this class we have no illustrations among our models. I must therefore pass on to mention certain effects of inherited syphilis which may be detected even in adults. These consist chiefly in the presence of cicatricial lines round the mouth, of flattening of the bridge of the nose, of a special form of keratitis, and of peculiarities in the teeth that have been described by Mr. Jonathan Hutchinson.

The first and the last of these effects are illustrated in the following models:

129. INHERITED SYPHILIS. Model of the face of a woman, showing a number of cicatricial furrows, the result of fissures which had existed in infancy, such as are shown in models 120 and 121. They are accordingly arranged in lines radiating more or less regularly from the orifice of the mouth. They extend upwards in the angles between the nose and the cheeks, and also a little way upon the cheeks themselves. The skin round the mouth is also of a peculiar opaque white colour, different from the healthy brown tint of the rest of the face. Within the mouth several of the teeth may be seen to present the appearances characteristic of inherited syphilis: presenting a broad central notch, and having a somewhat pegged form. As is almost invariably the case, this is particularly marked in the two central upper incisors;

but the lateral lower incisors and the lower canines are also affected in a similar manner. It may be observed that the bridge of the nose is not flattened.

130. INHERITED SYPHILIS. Model of the face of a young woman, showing the mouth marked by irregular cicatricial furrows, radiating from its orifice, and especially from its angles. Some of the teeth within may be seen to present the rounded notches which are characteristic of inherited syphilis, particularly the two central upper incisors and the left lateral upper incisor.

131. INHERITED SYPHILIS. Model of the gums and teeth of an adult, showing the peculiar characters presented by the permanent teeth in persons affected with syphilis by inheritance. All the incisors and canines are small, and separated from one another by considerable intervals. Some of them are distinctly notched.

132. INHERITED SYPHILIS. Model of the gums and teeth of an adult, showing the teeth affected in the peculiar manner believed to occur only in those affected with inherited syphilis. This is most marked in the case of the right central upper incisor, which is both pegged and notched.

133. INHERITED SYPHILIS. Model of the upper gums and teeth of an adult. Some of the teeth, especially the two central incisors, are "pegged" in a very remarkable degree, coming quite to a point at their extremities.

ACUTE GENERAL DERMATITIS.

A non-relapsing, non-contagious affection, the characters of which will appear better from the models themselves than from any description. It was first described by Dr. Wilks under the name of dermatitis; and I think it must have a name of its own, for it cannot be placed under any of the cutaneous affections which are commonly

recognised. As, however, the term dermatitis would in strictness include the majority of the diseases to which the skin is liable, its application must in some way be limited to adapt it to Dr. Wilks' disease, and I think that this may most conveniently be done by calling the latter an "acute general dermatitis."

ACUTE GENERAL DERMATITIS. Four models (134 to 137) taken at different periods from a patient affected with this disease.

134. This model represents the flexor aspect of the left forearm and hand in the earliest stage of the affection. The surface of the forearm is reddened, and it is covered over with clusters of papules of a deeper colour. The skin of the palm and fingers looks red and shining.

135. This model shows the appearance of the same parts six days after the patient's admission. The forearm is now covered with red maculæ, some of which are as large as sixpenny pieces. They fade gradually at their borders into the surrounding skin, and many of them are also enclosed by circles of slight desquamation. Altogether, the eruption has now a striking resemblance to a form of syphiloderma. But the tips of the thumb and little finger present each a large opaque bulla. The skin on the hypothenar eminence also looks opaque, as though there were inflammatory exudation beneath it.

136. Model of the same parts taken four days later. The cuticle is now peeling off in large thin flakes, exposing a thin layer of newly formed skin, which presents red patches and spots of irregular form. The palm and the posterior surfaces of the fingers are of an opaque yellowish-white colour, and the horny layer of the cuticle appears to be raised by the accumulation beneath it of inflammatory products, probably of a purulent character.

137. This model was taken two months later. It shows the back of the right hand, all the nails of which are exfoliating. The old nails are seen to be detached from the bed, and to terminate posteriorly in a concave free edge, at a uniform

distance from the root. Beneath each of them a tender new nail is in course of formation. The nails of the thumb and forefinger are in part blackened from effused blood.

Thomas S—, æt. 34, a coal porter, living at Vauxhall, was admitted under Dr. Owen Rees' care, April 4th, 1860. He was extremely ill, with high febrile symptoms, a thickly coated tongue, and a full pulse. The whole body was covered with a thick roseolous rash. It was thought that the disease might probably turn out to be variola, but this proved not to be the case. The whole of the skin, however, became acutely inflamed, being of a red colour and slightly swollen. The palms of the hands and soles of the feet did not at first appear to be affected; but when the disease subsided it became evident that they had been involved, for the cuticle became raised in bladders at the ends of the fingers, and as the fluid was absorbed the skin shrank. The desquamation was universal, the epidermis peeling off in large flakes.

The rapid course taken by the eruption and the patient's complete recovery from it are sufficiently indicated by the models. It may be added that when the tongue lost its fur it was found to be superficially ulcerated. As regards the question of syphilis, the patient stated that he had ten years before had a sore, with a suppurating bubo, but no constitutional symptoms of syphilis. He became convalescent within a month, and left the hospital. Opportunity for taking the last model was only afforded by his happening to return on account of finding that the nails of his fingers and toes were becoming detached.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. vii, p. 310.

ERYTHEMA NODOSUM.

A disease which is attended with the formation of large, red, oval patches of considerable size, with much swelling of, and (it is said) effusion of blood into, the subcutaneous textures beneath them. The red colour soon passes into a purple, and ultimately goes through all the changes of tint that are so commonly observed in a bruise. Well-marked patches of erythema nodosum are perhaps never seen on parts of the body except the legs below the knees, but smaller and less raised spots are at the same time commonly seen on the forearms. I have once seen a patch of erythema nodosum suppurate.

This disease occurs chiefly in young women and in children. It is attended with some fever. It is non-contagious. It generally runs an acute course, and rapidly subsides, so that in two or three weeks the patient is as well as before. It has no tendency to recur.

138. Erythema Nodosum. Model of the left leg of a young woman, presenting a large patch of this affection just over the middle of the tibia. It is of a reddish-purple colour, and is surrounded by an ecchymosed border. In the neighbourhood are several smaller patches, two of them just inside the patella.

139. Erythema Nodosum? Model of the back of the left forearm and hand of a patient, presenting numerous scattered elevations, with a red blush fading gradually into the colour of the healthy skin. Two or three of them towards the elbow have vesicles on their summits.

The patient was a woman, æt. 50, who was in the Clinical Ward in 1852. The eruption existed on the face as well as on the legs and arms. She was exceedingly ill, and was suspected to be suffering from some irritant (? blood) poison, but she quickly recovered.

It is, I think, very doubtful whether this case would now be designated one of erythema nodosum, or whether it would not rather be placed in the wider category of E. multiforme.

ROSEOLA.

This name is one which has a very wide application. It is not confined to any one disease, but is used for all eruptions which are macular or exanthematic, and which have a bright or rose-red colour. Thus mention has already been made of a roseola preceding the eruptions of smallpox and typhus, and also of a roseola cholerica. The rash of scarlatina, and perhaps that of measles, ought also, in strictness, to be included under the same name. All these may be said to be "specific roseolæ." An eruption of this character, however, is not always thus traceable to any known disease, and it may have no contagious properties. It may then be termed a "non-specific" or "simple" roseola.

140. Roseola. This model represents the back of a child covered with a finely punctated macular rash, very like the eruption of measles.

The patient, J. C—, a delicate child, æt. 13 years, was residing on

the hospital premises at a time when smallpox prevailed. He had been vaccinated, and had well-marked scars on each arm. When first seen he had been ill for a week with general febrile disturbance and headache, and for three days a bright roseolous eruption had existed, which was slightly raised and interspersed with fine papules. He had also felt an irritation and itching all over him, which seem to have preceded the appearance of the rash. This was very full on the back and chest; it was also present on the thighs, but there was no appearance of turgescence of the hands.

On the following day he was better, and the eruption was paler, and after another day it quickly died off, and he appeared quite well again. During his convalescence slight desquamation occurred.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. iii, p. 349.

In Dr. Wilks' paper, and in the former catalogue, this case is spoken of as having, perhaps, been one of roseola variolosa, and as analogous to that represented in models 8 and 9. But such a view appears to be extremely doubtful, since the roseola was not followed by any true variolous eruption, and since, moreover, it made its appearance several days after the commencement of the febrile disturbance.

(See also remarks to models 159 and 160.)

HERPES ZOSTER VEL ZONA. SHINGLES.

This eruption consists of scattered clusters of rather large vesicles, which generally run together into flattened bullæ. Between the eighth and eleventh days their contents often become purulent; ultimately they dry up into crusts, which come off from the fifteenth to the twentieth day, leaving superficial cicatrices.

The presence of vesicles of rather large size, and arranged in clusters, is a character that belongs to various affections, all of which are included under the generic name of herpes. But the eruption of shingles presents a far more important character than this, and one which distinguishes it from all other vesicular affections. It is always developed in the distribution of one or more cutaneous nerves, and it is almost always confined to one half of the body. Sometimes the area affected by it is limited to the distribution of a single nerve, and it seldom extends beyond that of two or three nerves. I think, therefore, that the eruption may with confidence be declared to be secondary to a morbid change in some part of the nerve or nerves

concerned; and this morbid change appears to be seated in the ganglia on their posterior roots, which have been found reddened, and with their interstitial connective tissue in a state of proliferation.

Shingles is not contagious, and it has no tendency to recur. It is generally preceded or followed by severe pain in the affected nerves.

When occurring upon the limbs, herpes zoster was described by Willan and Bateman as a distinct affection under the name of herpes phlyctenodes. But this is altogether unnecessary.

141. HERPES ZOSTER. Model of the right side of the trunk of a girl affected with shingles, in an early stage. The eruption corresponds with the distribution of about the eighth and ninth dorsal nerves. Some of it has hardly passed beyond the papular stage, and the largest of the vesicles are not much bigger than millet seeds. They are arranged in clusters, and there is some redness and injection of the skin round them.

It is noted that the sister of the patient had had a similar disease at the same age.

142. HERPES ZOSTER. Model of the back and shoulders of a young person, affected with zoster over the distribution of about two of the upper dorsal nerves on the left side. The vesicles are very thickly scattered, and are not so distinctly clustered as usual. Some of them are running together to form irregular bullæ, and some are already beginning to dry up. As is often the case, they pass slightly across the median line. Over the right or opposite scapula there is a scattered papular rash, which was probably a lichen and unconnected with the vesicular eruption.

The model was taken on about the fifth day of the complaint.

143. HERPES ZOSTER. Model of the right shoulder and arm of a young person, presenting an eruption over the distribution of certain branches of the brachial plexus. The progressive development of the vesicles is well shown in this model. On the shoulder the vesicles have passed into flattened bullæ of irregular form and with opaque contents, some of which are already drying up. Towards the bend of the elbow they

are in a much earlier stage, some of them being hardly more than papules.

144. HERPES ZOSTER. Model of the right side of the chest and arm of a girl, presenting an eruption which follows the distribution of some of the nerves of the brachial plexus over the pectoral region, and the inner side of the upper arm and forearm. The vesicles are arranged in clusters, and many of them are running together, so as to form bullæ of irregular shape. There is much redness of the skin round them. On the chest some of them are beginning to form scabs, while at the elbow the vesicles are only just making their appearance.

M. W—, æt. 14, came as an out-patient to Dr. Wilks on February 8th, 1860. The following week the eruption entirely died off.

145. HERPES ZOSTER; ULCERATION OF THE BASES OF THE VESICLES. Model of the left side of the back and left shoulder of a man affected with shingles. The eruption extends downwards and outwards from the spines of the uppermost dorsal vertebræ to the posterior fold of the axilla, and thence down the back of the arm. It consists of a number of rather deep-looking ulcers, with red sharp-cut edges, and an ash-coloured surface, evidently corresponding with the bases of the irregular bullæ which arise from the coalescence of the vesicles of herpes zoster. Towards the axilla and back of the arm some of the thick brown crusts formed by the drying up of these bullæ are still visible.

G. S. F— was admitted under the care of Dr. Fagge into Stephen Ward, February 26th, 1867. Nine days before, an eruption had broken out in the area of distribution of the second and third dorsal nerves, attended with excruciating pain. Four or five days before his admission the vesicles ruptured. The ulcers were dry looking, and were very superficial, extending into the substance of the cutis, but not completely through it. On the chest the eruption had dried up into crusts of the ordinary kind. It was believed that the unhealthy appearance of the sores on the back was due to their having been irritated by the harsh under-clothing which he wore. The ulcers were dressed with lint soaked in a lotion containing diluted nitric acid. They quickly became clean and healed up. The patient was discharged cured on March 6th.

146. Cicatrices following Herpes Zoster. Model of the right side of the chest and abdomen of a patient, showing a number of pale cicatrices of irregular form, with pink areolæ, which are arranged in a horizontal line round the side of the body, about three inches below the level of the nipple.

The patient had had zoster some months before.

ERYSIPELAS.

This is an acute affection, which (in some of its forms at least) has a marked tendency to recur again and again in the same individual. It is contagious. The skin of the part affected by it is reddened, swollen, and shining; and occasionally bullæ make their appearance, which reach a large size. The inflammation also generally affects the subcutaneous connective tissue, which becomes greatly swollen and thickened, and may be the seat of suppuration or even sloughing. The eruption spreads at its border, which is generally well defined and often raised above the level of the surface as yet unaffected. The cutaneous affection is preceded by pyrexial symptoms for a variable time—from eight or ten hours to three or even four days. After lasting three or four days the redness and swelling subside, and the cuticle then desquamates.

147. Erysipelas. Model of the right side of the face and ear of a woman, suffering from an erysipelas of no great severity. The defined raised border of the affected part is very evident.

148. Erysipelas. Model of nearly the whole of the face of a man affected with an erysipelas of much greater intensity than that shown in the preceding model. The left ear is so swollen that the skin covering it is shining; and the eyelids are closed. There is a defined red border to the affected parts, this being very marked on the forehead.

149. Erysipelas. Model of the right upper limb of a woman affected with severe erysipelas. The forearm and hand are greatly swollen, and the skin presents at certain parts a

blush of redness, which fades off very gradually into the natural colour of the skin. On the back of the hand and on the forearm are some large irregular bullæ, filled with pus.

URTICARIA. NETTLERASH.

This affection is characterised by the development of wheals. They are defined raised spots or patches of irregular form, which are sometimes red, but more often white, and surrounded by an ill-defined red border. Some observers have supposed that wheals are produced by spasmodic contraction of muscular fibres contained in the skin; but it appears to be more probable that they are caused by a rapid exudation into the papillary layer of the cutis, compressing the vessels. However this may be, wheals may certainly arise with extraordinary rapidity, particularly in that form of the affection which Sir W. Gull has designated "factitious urticaria." Individual wheals also appear always to subside quickly, generally within a few hours. The whole eruption often runs an acute course, but it may be prolonged by the successive formation of fresh wheals, and it may then last several weeks or even months. Except when it is the result of the ingestion of some kind of food that happens to disagree, or of some similar cause, urticaria is exceedingly apt to recur.

When the wheals disappear the skin may at once resume its natural appearance, or stains may be left. I once saw a case in which such stains were visible a year afterwards. In very rare cases there is slight desquamation of the cuticle after urticaria.

150. URTICARIA. Model of the front of the right elbow and forearm of a woman, presenting numerous white wheals, most of which are surrounded by a slight red blush.

151. URTICARIA. Model of the back of the right hand and forearm of a man, on which are several wheals of various sizes.

The patient was thirty-five years old, and had been liable to nettle-rash for seven or eight years. It frequently came out soon after he went to bed, and would keep him awake during the greater part of the night.

152. URTICARIA. Model of the outer and back part of the right

forearm of a man, presenting a large number of small wheals, most of them circular in form, and each surrounded by a very vivid red zone. There also appears to have been much general redness of the integument.

The patient was a brewer, about forty years of age. No cause for the complaint could be discovered. It was attended with some irritation of the skin. The wheals subsided in a few hours.

153. URTICARIA. Model of the right lower limb of an infant, presenting numerous wheals of various sizes, each surrounded by a broad zone of a dark reddish-brown colour.

In the former catalogue this model is designated "urticaria febrilis," but it is not stated whether febrile symptoms existed, or whether the reason for this name having been given was simply the redness round the wheals, which in the catalogue is styled inflammatory.

URTICARIA. Two models (154 and 155) of the loins and buttocks of a man affected with a very intense form of urticaria, the wheals being very large, and much raised above the level of the rest of the skin. They are also surrounded by zones of a deep red colour.

154. This model represents the eruption on the right loin and buttock, stretching forwards laterally towards the abdomen and thigh.

155. This model gives a view of the back of both loins and gluteal regions. In those parts on the right side which are represented in both models the distribution of the wheals is not precisely the same, although there is a general resemblance. It is therefore evident that the models were taken at different times. In the second model the swelling is even greater than in the previous one, but the redness is rather less. It may be observed that some of the wheals are not white, but of a yellowish-brown colour, somewhat resembling that of a bruise which is fading and about to disappear. This may, perhaps, depend upon the fact that the same parts had before been the seat of an urticarious eruption, which in subsiding left stains behind it.

Nearly the whole surface of the body was affected with nettlerash at the time when these models were taken. The man appeared to be in good health, and was not aware that he had committed any irregularity in regard to his food or otherwise which could have given rise to the complaint. The irritation caused by this intense eruption was less than that which is usually present when the disease is apparently in a milder form.

URTICARIA (FACTITIOUS). Three models (156 to 158) of the arms of a man showing wheals of various forms which were produced by direct irritation of the skin.

156. This model shows the appearances that were observed after the skin of the left arm and forearm had been pinched. Large wheals arose, each surrounded by a zone of light red colour, and exactly like those which are observed in ordinary urticaria.

157. This model shows the appearances presented by the other arm after long lines had been traced down it with the finger nail. The wheals now formed long parallel striæ.

158. This model shows the initials of the man's name (R. L.) which had been previously traced on his left forearm.

The man from whom these models were taken came to the hospital in the year 1857. In him wheals could at any time be produced by simply irritating the skin. First a red mark showed itself. This then became elevated, and in about ten minutes it assumed a white appearance, with a red border round it. Some hours passed before the wheals produced in this way would subside.

See Dr. Gull's paper in the 'Guy's Hospital Reports, series iii, vol. v, p. 316.

ERYTHEMA MULTIFORME.

An acute, non-contagious affection of the skin, presenting very varied appearances, which, however, are frequently associated together in different cases in such a way as to show that they all belong to one disease. It has a strong tendency to relapse, which perhaps depends upon the fact that it occurs chiefly in those who are subject

or liable to acute and subacute rheumatism. Thus it often appears in the course of an attack of rheumatic fever (when it has been termed *peliosis rheumatica*), and even if it breaks out as an independent disease it is commonly attended with more or less pain and swelling of some of the joints.

The simplest form in which it shows itself is as an eruption of flat papules and raised spots of various size and form. This is the affection which older writers termed an erythema papulatum. In some cases the papules are so large and so much raised that they deserve the name of tubercles; such an affection was formerly called an erythema tuberculatum. In other cases the eruption consists of patches of considerable size; these often fade in their centres while they spread at their margins. To such an eruption the names erythema circinatum and e. marginatum were applied. Lastly, hæmorrhage often takes place into the patches, which may then become considerably swollen and raised above the surface. I believe that it is such an affection as this which used to be called purpura urticans; and this name is not so inappropriate as might appear, for such patches often have pale flat summits; and, indeed, a few wheals are commonly mixed with the spots occurring in the simpler forms of the disease, as, for instance, when it accompanies an attack of acute rheumatism.

From the foregoing description it will be evident that it must be somewhat difficult to draw a sharp line of distinction between erythema multiforme and e. nodosum. Indeed, in the latter affection there are often present on the arms a few scattered spots which (by themselves) would be regarded as rather belonging to e. multiforme. Still it appears probable that they really are different affections.

According to Hebra, erythema multiforme invariably affects the dorsal surfaces of the hands and feet. It is only in the more severe cases that it is observed on the forearms and legs, on the arms and thighs, and even on the trunk and face.

ERYTHEMA MULTIFORME (PAPULATUM). Two models (159 and 160) from a patient affected with this disease.

159. This model represents the back of the right forearm and hand. From the fingers to the wrist the surface is universally reddened, with the exception of the knuckles, which appear pale, evidently from the skin having been in a state of tension. The back of the hand also presents numerous elevations which are slightly less reddened than the rest of

the surface, giving it a mottled character. At the wrist the redness terminates by a defined border, and on the forearm are scattered numerous maculæ, the largest of which are each of about the size of a threepenny piece, having a bright red border with a pale, slightly livid centre. Towards the upper part of the forearm the maculæ become very small or punctiform.

160. This model represents the dorsum of the left foot and ankle. From the toes to the instep the surface is of a diffused crimson-red colour, with many raised maculæ or papules. Above the instep there are only scattered paler papules.

The eruption thus occupies on the foot a corresponding region to that which is affected by it on the hand, but it is less extensive and its characters are less defined.

Edward R—, æt. 36, came to the hospital in 1853, presenting the eruption which is depicted in these models, and which he said had appeared about twenty-four hours before. He complained of violent headache, and "had all the symptoms strongly marked which usually precede variola." He had, however, been vaccinated, and had satisfactory marks on both arms. The hands were stiff and swollen, the surface undulating, tumefied, and slightly nodulated; the surface, however, yielded to the touch. On the third day the hands were less swollen, of a darker and more purple hue, and presented very much the same appearance as if they had been soaked in an infusion of logwood, the colour terminating at a definite line. The spots on the wrists were now less raised, and had coalesced to form irregular patches with bright margins and more livid centres. The small pimples on the legs and arms were paler. On the fourth day the feet had almost regained their original colour, and slight reddening of the backs of the hands was nearly all that remained of the eruption. The patient considered himself well.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. iii, p. 349.

The case is there recorded under the title of roseola variolosa, in company with those from which models 8 and 9 and 140 were respectively taken. This view, however, appears to be extremely doubtful, although the eruption undoubtedly seems to have been very like that which existed in the former of the two cases just referred to (models 8 and 9). Much stronger evidence would, I think, be required to prove

the variolous nature of an eruption which quickly subsided without the development of any of the characteristic appearances of smallpox. Indeed, if it be considered that the similarity of the eruption in models 8 and 9 proves its identity with that represented in model 160, I should rather be disposed to take the former away from variola than to include the latter under that disease. It may be observed that the backs of the hands and forearms are not known to be a favorite seat of the roseola which precedes smallpox, for I have rather seen it occur on the lower part of the abdomen and front of the thighs, and this accords with Hebra's account of it; whereas the backs of the hands are very generally among the parts principally affected in erythema multiforme.

161. ERYTHEMA MULTIFORME (CIRCINATUM). Model of the back of the left hand and forearm, presenting numerous scattered patches of varying size, all the larger of which have pale centres, giving them the appearance of rings.

162. ERYTHEMA MULTIFORME (PAPULATUM et CIRCINATUM). Model of the inner side of the right thigh and leg of a child, presenting numerous maculæ and patches. The smaller of these would correspond fairly in character with an "erythema papulatum." One or two of the largest of them have slightly paler centres, so that their appearance approaches that of an "erythema circinatum."

163. ERYTHEMA MULTIFORME (PAPULATUM, CIRCINATUM, et MARGINATUM). In this model, which represents the left side of the back of a child, the affection is still further developed. Besides the raised spots of E. papulatum and the rings of E. circinatum, there are large patches, with pale centres and irregular projections from their raised crimson borders. These have evidently been formed by the confluence of spots originally distinct from one another.

164. ERYTHEMA MULTIFORME (CIRCINATUM et MARGINATUM). Model of the left leg of a boy, presenting several large patches of erythema multiforme, each bounded by a narrow border,

while their centres are only slightly redder than the rest of the surface. There are also some earlier and smaller spots, which are just taking on the circinate character.

F. M—, æt. 10, was a patient of Dr. Habershon, in Philip Ward. He was admitted for chorea, and died a month later of acute pericarditis and endocarditis. There was no history of rheumatism, but he had always been delicate.

Inspection Book, 233, 1862.

165. ERYTHEMA MULTIFORME (TUBERCULATUM). Model of the left leg of a patient, presenting a large number of scattered, slightly raised spots, some of which reach the size of a shilling, and appear to be assuming a purpuric character.

In the former catalogue this model was named erythema nodosum on account of the larger spots, which, however, do not appear really to present the characters belonging to that affection.

ERYTHEMA MULTIFORME (HÆMORRHAGICUM). Two models (166 and 167) from a case in which this eruption was present in a very aggravated form.

166. This model represents the lower part of the left thigh and the upper part of the leg, on their front and inner aspects. An early stage of the affection appears to be shown in certain spots above and below the knee, in the form of whitish elevations, each of which has a purpuric centre and a red blush round its circumference. These may have been either wheals or flattened vesicles, probably the former. The bulk of the disease is evidently of longer standing. It consists of raised patches of a purple colour, some of them as large as florins, presenting purpuric spots on their surface, and surrounded by ecchymosed borders. There are also some minute purpuric spots, many of which have a distinctly papular character, their summits having in many instances been scratched off and being covered with little crusts of dried blood. Some of them, however, appear to be constituted by minute points of hæmorrhage into the skin or beneath it, and each of these has round it a distinct white zone.

167. This model represents the same part as the previous model, and shows the affection in a somewhat more advanced condition. The spots resembling wheals have grown larger, and many new ones have made their appearance, and on careful scrutiny it may be observed that the centres of many of these new spots correspond exactly in situation with the minute hæmorrhagic points shown in the previous model, which had round them white zones. It is therefore evident that the earliest stage in the eruption consisted in the appearance of a small point of hæmorrhage. The larger ecchymosed patches have also increased in size, and are more numerous than in the former model. Many of the hæmorrhagic papules which are shown in the former model towards the lower part of the leg can in this one be seen to have run together into broad hæmorrhagic bands, placed transversely to the axis of the limb.

It is to be regretted that no record has been preserved of the interval of time that elapsed before the second model was taken.

This case was formerly entitled "purpura urticans," and must be regarded as a most perfect example of that affection, if it were desirable to recognise it as a distinct disease. Unfortunately, there is no record of the clinical history, nor of the appearances presented by other parts of the patient's body. But, comparing it with that represented in model 168, and with many other cases that have been under my observation from time to time, I have very little doubt that the purpuric character presented by the eruption was really accidental, although it was so striking a feature of the case.

168. ERYTHEMA MULTIFORME (CIRCINATUM, et MARGINATUM, et HÆMORRHAGICUM). Model of the outer side of the left knee and calf of a young man, presenting several raised patches of E. multiforme. These have sharply defined crimson borders, but their centres are only slightly less red. They are surrounded by greenish areolæ, resembling bruises that have almost faded away.

In this model the hæmorrhagic or purpuric character which so commonly belongs to E. multiforme is well marked.

The patient was a young man, æt. 21, who was under the care of Dr. Habershon, in Job Ward, in May, 1855, suffering from acute rheumatism. Three years before, he had had the same disease, which was then accompanied with erythema. Pericarditis was discovered soon after his admission. The eruption, as it faded, became purpuric or ecchymotic, especially on the lower limbs. He completely recovered.

See Dr. Habershon's paper in the 'Guy's Hospital Reports,' series iii, vol. iii, p. 109.

169. Erythema Multiforme (Circinatum et Hæmorrhagicum). Model of the inner side of the right thigh and knee of a child, showing numerous patches of a crimson-red colour, most of which have raised pale centres, resembling wheals. Each patch is surrounded by a pale rose-coloured blush, which has nothing of a purpuric character; but towards the upper part of the model there is an imperfect purpuric ring, with a central spot also purpuric and an intermediate zone of a greenish tint resembling that of a bruise.

This model was formerly called purpura urticans, but I think it is perfectly evident that the purpuric appearance is a mere accident, just as it is in model 164, which even in the former catalogue was designated erythema marginatum. I have already remarked that the presence of wheals is not a ground of distinction, for well-marked wheals are often seen in the most typical cases of erythema multiforme, occurring in the course of acute rheumatism.

HYDROA.

An acute non-contagious affection of the skin, presenting very varied appearances, but especially characterised by the development of vesicles or small bullæ, which often form rings, one enclosed in another. It occurs especially on the backs of the hands and forearms, and on the face.

It has a strong disposition to recur. Unlike erythema multiforme, it appears not to be definitely connected with the rheumatic tendency. It is very nearly allied to pemphigus. I have seen one case which in some attacks presented the characters of typical pemphigus, while in others there were the most perfect vesicles arranged concentrically one inside another.

The name hydroa was, I believe, invented by Bazin, of Paris. It has been introduced into England chiefly by Mr. Hutchinson (see 'British Med. Journal' for 1870). It includes all cases of the affection that has hitherto been known as herpes iris, besides a great many other cases to which that name would not be applicable.

HYDROA. Four models (170 to 173) from a patient affected with this disease.

170. This model shows the back of the left hand and wrist, affected with an early stage of the disease. There is some diffused redness, and upon this are scattered a small number of vesicles of flattened form, and as it were embedded in the skin. In some of them the fluid appears to be already becoming turbid.

171. This model shows the back of the right hand and wrist of the same patient in the same attack, but in a somewhat later stage. The diffused redness is less than in the former model. The vesicles are larger, much more raised, and fuller. They are surrounded by red areolæ, and beyond these the cuticle is peeling slightly. The vesicles look as if they still contained serum, scarcely more opaque than in the former model.

172. Model of the right hand and wrist of the same patient in a subsequent attack. The vesicles are rather smaller than in the last model. Some of them have hardly advanced beyond the papular stage, while others are drying up into thin crusts. One of them has had its summit picked off, so that a small raw surface is exposed.

It may be noted that the vesicles correspond in a very marked way in this and in the previous model, so that one would have thought that they belonged to the same attack of the disease. They are much more numerous over the first two metacarpal bones, and over the lower end of the radius, than over the rest of the hand and wrist.

173. Model of the back of the right hand and wrist of the same patient, showing the state of the affection a fortnight later,

The vesicles have undergone a great increase in size, and some of them have run together, so as to form irregular bullæ. They are still tense, and appear to contain a colourless fluid. Only one on the back of the forefinger looks as if its contents were purulent. There is much diffused redness of the back of the hand, with some desquamation of the cuticle.

The patient from whom these models were taken was a young woman, admitted into Clinical Ward under Dr. Moxon in 1871 or 1872 for heart disease. She was attacked with hydroa while in the hospital. The report of her case has unfortunately been mislaid.

HYDROA (HERPES IRIS). Two models (174 and 175) representing the back of the right hand and forearm of a patient affected with this disease.

174. In this model the affection is shown as it appeared on the third day. On the back of the hand there are a number of isolated vesicles of an opaque white colour, with surrounding redness of the skin, the largest of them being between the size of a millet seed and that of a split pea. On the forearm there are similar vesicles, one of which only has attained any considerable size. This is larger than any of those on the hand, and round it is a vesicular ring, of the same opaque white colour, and outside this again a pale red zone.

175. In this model the same parts are shown as they were two days later. The vesicles have increased in size, and several of those on the back of the hand and wrist are now surrounded by more or less distinct rings. The large vesicle on the forearm has become greatly larger, and its centre is flattened, so that it has itself assumed an annular character; the diameter of the ring outside it is also considerably greater than before.

The patient, Mr. B—, was one of the students of the hospital in the year 1856.

176. HYDROA (HERPES IRIS). Model of the outer surface of the right arm and forearm of a patient affected with this disease. The vesicles are seen in all stages, from some which are

hardly bigger than pins' heads to others which have passed into large flat bullæ. Two of them have in part a peculiar bluish tint, shading off gradually into the yellowish hue of the rest of their surface. This probably was a main reason which led to the making of the model, as it affords an explanation of the epithet "iris" applied to the affection. Each of the bullæ is surrounded by a broad red zone, which is partially covered by scales and by edges of exfoliating cuticle, or, in several instances, by a vesicular ring. Such vesicular rings, of recent formation, may be seen, not only round some of the bullæ which are themselves in an early stage, but also round others which have already formed into crusts. At the upper part of the model the large bullæ have dried up into thin scabs, and the rings round them have also become obsolete, having lost their roofs, so that the moist surface of the rete mucosum is exposed.

HERPES CIRCINATUS.

The distribution of some of the classical species of herpes (zoster and iris) into different categories leads to considerable difficulty with regard to the disposal of the remainder. One of them, herpes circinatus, was formerly held to include an affection which is now known to be of parasitic origin, being the representative, on the body generally, of tinea tonsurans of the scalp. Since many of the models which were intended to illustrate herpes circinatus were made before this fact was ascertained, there is great difficulty in saying where they ought to be placed. I think, however, that the cases from which the following models were taken may be fairly supposed to have been non-parasitic; but with regard to the question whether a non-parasitic herpes circinatus ought to be recognised as a distinct disease, independent of erythema multiforme and of hydroa, I am altogether in doubt. It would be very important to ascertain whether, like them, it has a tendency to recur over and over again in the same patient. It is to be regretted that no history of any of the following cases has been preserved.

177. HERPES CIRCINATUS. Model of the chest of a boy, æt. 14, presenting several rings, each of about the size of

a florin, and formed by a series of vesicles, upon a reddened base, with a patch of healthy skin in the centre. The vesicles were of about the size of millet seeds, rounded or flattened, and some of them were already drying up into scabs. Here and there isolated vesicles are shown, and at other points three or four vesicles arranged so as to form a small segment of a circle. The rings, once formed, appear to have no tendency to undergo centrifugal extension. In this respect, and also in its markedly vesicular character, the eruption is entirely different from the common circinated affection, which depends upon the growth of the tricophyton tonsurans among the cells of the epidermis.

178. HERPES CIRCINATUS. Model of the right upper limb of an infant, presenting a remarkable vesicular eruption. On the back of the forearm there is a red circular patch, rather larger than a shilling. This is almost covered with minute vesicles, which, however, are somewhat definitely arranged towards its periphery, so as to give it a well-marked border. Just below it is a much swollen and paler patch of similar vesicles, and there are one or two others on the back of the hand.

There is no reason to suppose that the affection represented in this model was a tinea circinata, so far as one can judge from the characters of the eruption.

179. HERPES CIRCINATUS. ERYTHEMA MULTIFORME? Model of the left side of the trunk and left shoulder and arm of a girl, æt. 11, presenting an extensive eruption of large pale red maculæ, some of which are distinctly annular, while others form patches of a very irregular pattern, produced in part by the coalescence of spots originally distinct. On the summit of the shoulder is a small patch the size of a sixpenny piece, of the same colour as the rest, but with an ill-defined border, and covered with a cluster of vesicles. This has been regarded as indicative of the essentially herpetic character of the whole eruption. But I confess that this view appears to me very doubtful; I should be more inclined to think that the affection was a roseola or an erythema multiforme.

180. HERPES CIRCINATUS? Model of the right thigh of a child, presenting a very curious eruption. This consists of a series of branching, sinuous, slightly raised lines, of a very faint pink colour, and having scattered along them a few minute vesicles.

There still remain certain forms of eruption which are called herpes because the large, flat, full vesicles resemble those seen in zoster, and because their development is that of an acute affection; but of which I believe that no more definite account can at present be given. Among these are the herpes labialis which so frequently accompanies pneumonia and gastric disorders, the herpes præputialis, &c.

181. HERPES. Model of the face of a woman, both sides of which are covered with an herpetic eruption. The vesicles are particularly distinct and numerous on the lips. Some of them are also scattered on the cheeks, forehead, nose and chin. There is also much diffused redness and swelling of the integument, and on the forehead the reddened parts have defined borders, as in erythema or superficial erysipelas.

182. HERPES? Model of the buttocks of a child, presenting a few scattered vesicles of a doubtful character, and some brownish crusts of considerable size.

In the former catalogue this model was designated "herpes," and the name is retained, although there is nothing in the appearance represented to show that it is correct. It looks, I think, very like a case of eczema porrigo.

HERPES OF EYELIDS, associated with OPHTHALMIA. Two models (183 and 184) showing successive stages of an herpetic eruption occupying the upper and lower lids of the left eye, and the region external to it, over the zygoma. It does not appear to follow the distribution of the trunks of the nerves, since it occupies only a small part of the surface supplied by the first and second divisions of the fifth nerve respectively.

183. In this model the eruption is shown when it had existed a week. The eyelids are enormously swollen and reddened, and from the palpebral fissure a thick purulent discharge is oozing. The vesicles are small; they are not numerous, and they are scattered irregularly rather than aggregated in groups.

184. This model represents the same eruption as it appeared a few days later. A few fresh vesicles have developed themselves. There is one in particular, on the side of the nose, just internal to the inner canthus. Their contents are becoming opaque, and some of them are already drying up into crusts.

The patient was a boy, æt. 5, who in 1857 was attacked with ophthalmia, and at the same time with the herpetic eruption.

PRURIGO.

A chronic cutaneous affection, characterised anatomically by the eruption of scattered papules, which are, no doubt, due to inflammatory serous exudation into the more superficial layer of the derma. They are almost or quite colourless, and hence may easily escape notice. They are, however, almost always quickly destroyed by the patient's fingers in attempts to relieve the itching, which is a constant feature of the disease. Their summits then become covered with minute black crusts of blood, which render them much more obvious than they were before. In all long-standing cases of prurigo the cutis of the affected parts becomes more or less deeply pigmented, its thickness is increased, and the natural furrows of the skin are exaggerated.

One of the principal forms of prurigo described by Willan and Bateman—their prurigo senilis—has of late been shown to depend upon the irritation caused by the presence of pediculi in the clothes. Phthiriasis is the best name for this affection. It is, perhaps, not quite certain that all cases are caused by the parasite; but I have myself met with only one case which appeared not to be so caused.

Hebra, of Vienna, has described a very intense form of prurigo, which is commonly complicated with eczema and with enlargement of the lymphatic glands, and which he regards as incurable. It is

doubtful whether cases so severe as those of which he speaks are ever seen in England. He lays great stress on the circumstance that the papules appear before the patient has begun to scratch himself. He also insists on the circumstance that the papules are developed on the extensor rather than on the flexor surfaces of the limbs.

It has long been known that in certain affections which Willan and Bateman described as species of prurigo no papules are ever developed. This is the case, for instance, in the troublesome local affections which so often affect the anus, scrotum, vulva, &c. For a long time past we have been accustomed at Guy's Hospital, following Dr. Gull's teaching on this point, to speak of these as forms of *pruritus*, reserving the name of *prurigo* for cases attended with the papular eruption. Hebra has adopted a similar plan; but those who have adopted Hebra's views in America and England have drawn the line between pruritus and prurigo at a very different point. Failing to make out, in the cases of what has been termed prurigo in this country, that the papules exist before the scratching, and failing also to observe the definite localisation to the extensor surfaces of the limbs described by Hebra, they have come to the conclusion that all the "prurigo" which they commonly meet with should be excluded from that disease and called pruritus. Dühring, of Philadelphia, for instance, has described as *pruritus* hiemalis an affection which returns every winter, passing off in the summer. Now, I have had good opportunities of watching an instance of this affection, and I can speak positively to the fact that the skin becomes pigmented and thickened, that its natural fissures become exaggerated and covered with a white mealy dust, just as in the disease described by Hebra. Moreover, although it is true that the insides of the knees are severely attacked by the affection, it occurs on the outsides of the hips and outsides of the calves almost as much as on the insides; and on the upper limbs it occurs on the extensor surfaces of the forearms and not at all on the flexor surfaces. I have not been able to observe that the papules precede the scratching, but surely this must always be a very difficult point to determine. Moreover, I doubt whether it would afford a valid ground of distinction, for in the closely allied disease, urticaria, it is certain that the wheals sometimes precede the scratching, and are sometimes brought out by it, and that this does not constitute a fundamental difference. Hebra himself, indeed, speaks of his prurigo as frequently seeming to disappear in the summer.

I have, therefore, no hesitation in applying the name of prurigo to at least the first of the two following models, which are all that we have to illustrate this affection.

185. PRURIGO. Model of the right side of the chest and abdomen, presenting an immense number of scattered papules, varying considerably in size. The smallest of them are scarcely, if at all, darker in colour than the surrounding skin. But the larger ones are of a bright red colour, and many of them have had their summits scratched off, and are covered with small crusts of dried blood. Some brownish maculæ may here and there be seen, apparently indicating the site of former papules. There are also much diffused redness and staining of the integument, the result, probably, of the congestion to which it had been subject.

The patient was a man, not very old, under the care of Dr. Addison, who had the model made as a good example of inveterate prurigo. It is unfortunate that no further history of the case has been preserved.

186. PRURIGO SENILIS? Model of the back and right shoulder of an old woman, on which are scattered numerous papules and minute scabs of dried blood. The inelastic character of the skin in old age is well indicated in the folds at the bottom of the model.

This model was evidently made many years ago, before the fact was recognised that the so-called prurigo senilis is almost invariably caused by the presence of pediculi vestimentorum. In all probability, therefore, the case was really one of phthiriasis, and would have been cured by the removal of its cause.

All that is known of the patient is the brief statement in the former catalogue that the case was of inveterate character and unrelieved by treatment.

STROPHULUS.

A more or less chronic cutaneous affection characterised by the development of scattered papules, which are generally much larger and more conspicuous than those of prurigo, and which also vary much more in colour, being sometimes bright red, sometimes white. It occurs only in children and young persons. In infants it is often

called "tooth-rash," or "red" and "white gum." In older children the papules occasionally pass into vesicles, which may even reach a considerable size. It may then easily be mistaken for scabies, especially as there is often severe itching; in the slighter forms, however, itching may be altogether absent.

187. STROPHULUS. Model representing the face of a child, on which may be seen numerous papules of strophulus, almost all of them colourless, but a few surrounded by faint red zones.

188. STROPHULUS. Model of the back of the right forearm and hand of a child, presenting an abundant eruption of strophulus. Most of the papules are of a reddish colour. There is also some diffused reddening of the skin.

189. STROPHULUS. Model of the back of the left elbow, forearm, and hand of a child, covered with a copious eruption of strophulus. Many of the papules are aggregated in clusters. Some of them are white, some are red, and some are passing into vesicles.

190. STROPHULUS. Model of the right side of the chest, shoulder, and upper limb of an infant, showing an eruption of strophulus. This on the arm presents the ordinary papular character; but over the pectoral and deltoid muscles almost all the pimples have passed into a vesicular stage, and some of them even look yellow, as though they contained a seropurulent liquid. There is a zone of bright redness around each of these vesicles.

191. STROPHULUS. Model of the right lower extremity of an infant, presenting an eruption of scattered papules and vesicles. Some of them are isolated, others are arranged in clusters, with a zone of redness around them, gradually shading off into the colour of healthy skin.

192. STROPHULUS. Model of the right thigh, leg, and foot of a child, presenting an eruption which appears to be vesicular, but which in the older catalogue is described as consisting of

"large isolated *papules*." The smaller among them are acuminated, the larger (several of which reach the diameter of a split pea) are flattened. Most of these larger ones are surrounded by a red blush, which may even enclose three or four of the apparent vesicles, when they happen to be near one another. Here and there a similar red blush may be seen without any papules or vesicles; this probably indicates the first appearance of the eruption.

193. STROPHULUS. Model of the right lower limb of a young child, presenting numerous papules of a crimson colour. Many of them have been injured by friction or scratching, and are covered with little crusts of dried blood. Among the papules are also some ill-defined maculæ, of larger size, but less raised above the level of the rest of the skin. It is to be noticed that the eruption is confined to the anterior and outer parts of the thigh and leg. Its distribution is thus entirely different from that which is ordinarily met with in scabies.

The child was a patient of Dr. Gull's in 1856. The disease had been previously treated for scabies without success through a period of several months.

194. STROPHULUS. RUPIA. Model of the face and neck of a child covered, especially on the left side, with brownish papules of strophulus, without any redness of the surrounding skin. Below the chin there are several excavated ulcers of rupia, surrounded by brownish-red zones of inflammation. These are perhaps quite unconnected with the strophulus. But in opposition to such a view it may be urged that in the neighbourhood of the ulcers there are some papules which are reddish and apparently assuming a vesicular character, and that some of the ulcers are very small, no bigger than might be developed from such vesicles. If the ulcers really did thus arise out of the papular rash, the cause doubtless was that the child was in a very cachectic condition.

PEMPHIGUS.

A chronic cutaneous affection, with a strong tendency to relapse, and attended with the formation of scattered bullæ, which may contain either serum or pus. These appear in succession during a period of several weeks or even months. The individual bullæ, however, are of transient existence; they either dry up into thin scabs or form superficial excoriations, which sooner or later skin over, leaving deep purple stains.

PEMPHIGUS SERPIGINOSUS.—In very rare cases the disease presents a remarkable modification of its ordinary characters. The bullæ are not isolated from one another by intervals of healthy skin, but are collected upon the borders of extensive reddened patches. In the cases of this kind that I have seen the bullæ, too, have been particularly small, hardly larger than the "vesicles" of herpes. Thus, as Hebra remarks, who has described this form of the affection, "any one who had not had an opportunity of watching the development of the disease from its commencement would certainly not have recognised it as pemphigus."

The case from which models 203 and 204 were taken was a striking instance of P. serpiginosus; but it unfortunately happens that at the exact time when the models were made its peculiar characters were not fully displayed.

PEMPHIGUS FOLIACEUS.—Another variety of the disease, which was first named by M. Cazenave, of Paris, is characterised by the circumstance that, except at the commencement of the disease, the great majority of the bullæ abort, so that, instead of forming tense, round collections of fluid, they are replaced by thin, flat, yellow or grey scabs, rolled up at their edges, and partially detached from the rete mucosum, which appears as a moist red surface. These may cover very large tracts of skin, and even the whole surface, a single small flaccid bulla appearing here and there occasionally to show the real nature of the case. It is generally said that P. foliaceus is incurable and always fatal, but the patient from whom model 205 was taken improved considerably, although she was suffering from a second attack of the disease. A peculiar sickly, nauseous odour of the skin is described as being present in this affection, but I have observed this in other forms of pemphigus also. It is said that the secretion from the exposed raw surfaces in P. foliaceus differs from that which is formed in eczema; it is less rich in albuminous

substances, and, therefore, when it dries upon linen it does not stiffen it.

Willan and Bateman described two bullous diseases, one under the name of pompholyx, the other under that of pemphigus; but the distinctions which were supposed to exist between them were quite trivial, and dermatologists are now agreed to include under one head all cases of the kind.

195. ? PEMPHIGUS or BULLOUS SYPHILODERMA. Model of the back of the right hand and forearm of a young man affected with a bullous eruption. The wrist is completely covered with blebs of different sizes, which are running together. Some of them contain a yellow fluid, others are purplish, no doubt from the admixture of blood. On the back of the hand are some isolated bullæ, one of which has burst, exposing a raw-looking surface. The whole of the back of the hand is greatly swollen and of a bright red colour. On the radial side of the forearm there is a large irregular patch, partly incrusted, partly red and moist-looking. This evidently corresponds with a number of confluent bullæ which had ruptured and discharged their contents.

No record of this case appears to have been preserved beyond the fact that the patient was in Samaritan Ward in the early part of the year 1865, and "had been the subject of syphilis."

In the former catalogue this model was placed among those representing syphilitic eruptions. But it seems to me to be exceedingly doubtful whether the case was not really one of simple pemphigus. It is greatly to be regretted that we do not know what treatment was adopted, as the result of the administration of arsenic on the one hand or of mercury on the other hand would very probably have been such as to clear up all doubt as to the nature of the eruption.

196. PEMPHIGUS. Model of the back of the right hand and forearm of an infant, showing several bullæ, each surrounded by a red zone.

197. PEMPHIGUS. Model of the face of a child affected with this disease. In front of the left ear is a bleb of the size

of a shilling, and several smaller ones may be observed on different parts of the face. On the left cheek is a large mass of crusts, which, no doubt, arose from the drying up of earlier bullæ, but which could not be distinguished from those derived from an impetiginous eczema.

198. PEMPHIGUS. Model of the inside of the left thigh and leg of a man affected with this disease. The bullæ are remarkably turgid; some of them contain fluid of a dark colour from the admixture of blood; the largest is nearly as big as a hen's egg. Between the bullæ are numerous small vesicles, and at the lower part of the model the surface is covered with an irregular mass of crusts of a yellowish-brown colour.

199. PEMPHIGUS. Model of the left lower limb of a woman affected with a severe form of pemphigus. There are numerous large bullæ, some of which are full of a transparent fluid, while others have ruptured, exposing the raw-looking surface of the rete mucosum, and others, again, are beginning to form crusts. Below the knee on the outer side is a large irregular mass of scabs. The whole leg is much swollen, and the cuticle is peeling off in large flakes from it, and also from the sole of the foot.

The patient was a stout woman at the time of her admission; her whole body was covered with large blebs and scabs in various stages. She died in a short time, apparently from exhaustion and from the irritation caused by so extensive an affection.

200. PEMPHIGUS. Model of the left upper limb of a girl, presenting an eruption of pemphigus in all its stages. This consists in the development of a number of isolated vesicles, the smallest of which are translucent, but most of which (as they increased in size) passed into flattened pustules, with surrounding zones of redness. There are several of them of about the size of a pea. Some of the vesicles, however, appear to have undergone rapid enlargement, without their contents becoming opaque, although the skin round them likewise became reddened, and they were then converted into bullæ. One such bleb, of the diameter of a walnut, is seen with its roof still uninjured,

and full of serum, and there are two smaller ones which have ruptured, so that the rete mucosum forming their floor is exposed. Some of the pustules have undergone centrifugal extension while drying up in their centres into crusts. Two or three of them appear to have coalesced, and in this way there is produced in the middle of the forearm a large patch, of somewhat indefinite character.

The patient, M. A. E—, a girl, æt. 18, was admitted in the summer of 1860, under the care of Dr. Rees and Dr. Gull. Her whole body was covered with scabs, especially her face, arms, and legs.

201. PEMPHIGUS. Model of the back of the right hand of a man, presenting several isolated bullæ, all of which are of a dark colour from the admixture of blood with the fluid contained in them. Several of them have burst, and the surface so exposed may be seen to be superficially ulcerated. The cuticle forming the remains of the roofs of these ruptured bullæ is blackened, showing that the amount of blood effused into them must have been considerable. On the back of the hand is a large irregular raw surface, with separation of the superficial layer of the cuticle down to the fingers.

202. PEMPHIGUS. Model of the palm of the left hand of a young woman, the centre of which is occupied by a large flat bleb of angular form and of an opaque yellow colour. Over the thenar eminence is another smaller bleb, which appears to have discharged its contents and to be drying up.

A. D—, æt. 26, a servant, in not very good health, came as an out-patient on December 29th, 1868. On the 8th of December a red rash had appeared on the front of her left wrist, and soon extended upwards as far as the middle of the forearm, and downwards over nearly the whole of the palm. Two days afterwards, five or six large patches of vesicles appeared on the palm. Mr. Goodhart saw her, and says that the eruption looked like one of herpes. Subsequently the vesicles ran all together, forming one large bleb, and a smaller one. The former measured 2½ inches by 1¼ inch. They both broke on the same day (December 21st). The cuticle forming their roofs gradually became dry, and horny, and brown. No fresh bullæ afterwards appeared.

The patient said that five years ago she had a large bleb on the right

wrist. About Christmas, 1865, a similar bulla appeared on the left palm. In February, 1867, she had one on the right hand.

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 335.

PEMPHIGUS SERPIGINOSUS. Two models (203 and 204) from a boy affected with this form of the disease.

203. Model of the genital organs, presenting a few bullæ, of no great size, seated upon a surface which is uniformly reddened and eczematous-looking. Some of them are drying up into crusts.

204. Model of the inner side of the leg and ankle of the same patient, taken a year or two later, when the boy had a fresh attack of the disease.

Numerous bullæ are visible, the most recent of which have not reached the size of a split pea. All of them are flattened, and they show a tendency to run together so as to form irregular patches. Some of them have already ruptured, and allowed their contents to escape. The seat of these is indicated only by a red mark and an edge of desquamating cuticle; and it may be noted that fresh bullæ are forming upon one or two of these places, which had already been the seat of blebs at no distant period. There is some diffused redness of those parts of the skin on which the bullæ are most numerous.

F. S—, æt. 13, admitted into Stephen Ward, under Dr. Wilks' care, October 16th, 1867. He presented an eruption on both legs. This consisted of large reddened patches, covering a large part of the leg below the knee. Towards the edges of these patches, which were irregular in outline, there were several vesicles, about as large as peas, flaccid, and running together into irregular blebs. Some of the vesicles had dried up into brown crusts. The skin over the patches themselves was peeling off. There was some itching.

The left leg was much swollen, and pitted on pressure; the right leg less so.

The appearance presented by the affected parts was thus very peculiar. It bore a certain general resemblance to the swollen eczematous state of the lower limbs, which is so commcn in persons of advanced years; but the large irregular vesicles which existed along the borders of the patches were quite different from anything that is seen in such cases. The vesicles themselves were just such as the older

writers would have said to be characteristic of herpes; about as large as split peas, round and full, often running together, so as to form bullæ of irregular outline.

The boy looked pale and thin, and as if he had some renal disease. The urine was therefore repeatedly examined, and on one occasion a trace of albumen was found in it. Its sp. gr. was 1013.

He stated that he had been liable to the disease for about four years. At first it came out in small blisters, about one eighth of an inch in diameter, principally on the legs, but also about the mouth. These blisters burst, and scabbed over, and then healed. Ever since that time crops of them had been successively coming out.

There was at first considerable doubt as to the nature of the disease in this case. It appeared, however, that the boy had, for a considerable time before his admission, been attending as an out-patient under Mr. Cooper Forster's care; and Mr. Forster stated that, in the first instance, the eruption had been one of ordinary pemphigus. The conclusion was therefore arrived at that the case was one of pemphigus in a modified form.

The results of treatment were such as to confirm this opinion. In the first instance local remedies only were used, and failed entirely. Fresh vesicles continued to be developed, whatever application was used.

On November 21st the administration of liq. arsenicalis was commenced in mij doses. All local treatment was ordered to be discontinued. On November 26th it is noted that "the legs have much improved in appearance. Most of the vesicles have scabbed over, and the general surface of the affected parts appear almost healthy. There are no fresh vesicles." The change affected by the arsenic within five days was extraordinary.

By November 30th the legs presented almost a natural appearance, most of the scabs having separated, and the redness even having almost entirely disappeared. The left leg, however, was still slightly swollen.

Early in the second week of December he complained of headache, sickness, and pain at the epigastrium. The medicine was therefore stopped on the 12th. He had also a little sore throat.

On December 20th some fresh spots again came out over the left ankle, and on the penis and scrotum. These all died away, but on December 24th some fresh vesicles appeared on the genitals. There was now a diseased surface of considerable extent, covering the scrotum and penis, presenting redness, excoriation, recent vesicles, and crusts. Mr. Towne saw the case on the 27th, and the model was made.

On January 4th, 1868, the arsenic was resumed in three-minim doses. It appeared to have an immediate effect. The vesicles rapidly scabbed and dried up. A little powdered starch was kept applied to the affected part.

See a paper by me in the 'Guy's Hospital Reports,' series iii, vol. xv, p. 336, where the subsequent progress of the case is related. The eruption was afterwards repeatedly cured by arsenic, which failed, however, when given in minute doses, to prevent its recurrence.

205. PEMPHIGUS FOLIACEUS. Model of the face of a woman affected with this form of pemphigus. There is some diffused redness, which, however, is not intense, except in a few places where flakes of cuticle have peeled off, exposing raw-looking patches of irregular form. These are generally said to be the representatives of aborted bullæ. Round the margins of these patches there are still to be seen loose and detached edges of the large flat scales which are characteristic of the affection. The other parts of the face are covered with smaller white scales of indefinite character.

E. H—, æt. 43, was under the care of Dr. Wilks, in Mary Ward, in October, 1870. She had been a widow for eleven years, and had had to work hard as a laundress to support her children, so that she had been very badly fed. She became thin and weak, but had no definite ailment until four years before her admission. An eruption, which she spoke of as "scurfy," then appeared in front of her left ear; it extended over the face, and afterwards covered her legs, trunk, and upper limbs. She was admitted into the London Hospital, under the care of Mr. Jonathan Hutchinson, who stated to me that the disease at first presented the characters of ordinary pemphigus, with well-marked bullæ, but that after a time it assumed the appearance of P. foliaceus. She was under treatment for fifteen months, and before she left the London Hospital the disease was completely removed. It soon, however, returned; and being unable to obtain admission a second time into the London Hospital, she came to Guy's.

On her admission the whole body was covered with broad white flakes, from two or three lines to nearly an inch in diameter. These are described by Dr. Pye-Smith as being "half scales, half crusts, thin, yellowish-brown, flat, turned up at the edges like parchment or flaky pie-crust." The surface underneath was bright red and moist, but there was no great quantity of fluid secretion, and this was thin and did not stiffen the rags over it. The surface had a peculiar faint odour. The skin was not at all thickened, and the irritation was but slight. In several places the remains of bullæ were visible, some as large as four-penny pieces. Nowhere was there one unbroken. The parts affected were the scalp, face, ears, neck, trunk, upper extremities (including the palms of the hands, where the flakes were dry, thick, and small), and the lower limbs (except the soles; but these, she said, had formerly

been affected). No part could be recognised as the "favourite seat" of the eruption. There was no apparent affection of the mucous membranes. The nails were free. The general health was good. The urine was alkaline.

She remained in the hospital nearly eleven months, during which time she was treated chiefly with arsenic and with lotions containing the liquor carbonis detergens. (It was understood that such a lotion had been the means of removing the disease when she was in the London Hospital.) Considerable improvement in her condition took place; but it did not appear that there was any prospect of the complete subsidence of the disease.

RUPIA ESCHAROTICA.

An affection arising by the development of vesicles, which may pass into bullæ, but which sooner or later rupture, allowing their contents to escape; afterwards the floor of each vesicle undergoes ulceration, forming a sore with vertical edges, as if punched out with a tool. This may go down to the subjacent muscle or even to the bone.

It is a disease of an early period of childhood; it affords no protection against itself, but I do not know that an actual relapse of it ever occurs. It is by no means necessarily incurable, but in a large proportion of cases it terminates fatally.

RUPIA ESCHAROTICA. Two models (206 and 207) from a child affected with this disease.

206. Model of the left lower limb, showing two or three isolated vesicles, which seem to be the earliest indications of the affection. On the thigh there is a superficial ulcer, with a raised and apparently indurated base, and an edge of desquamating cuticle round it. On the outer side of the leg there is an ulcer of the size of a threepenny piece, with vertical sides, perforating all the tissues to the depth of one third of an inch. It is surrounded by a red zone of some width.

207. Model of the head and chest of the same child. On the chest there are two superficial ulcers like that on the thigh. On the forehead there are a vesicle and another superficial

ulcer. But the scalp is covered with ulcers of varying size and form; some of large size, and comparatively superficial; others quite small, but forming round punched-out holes, going straight down to the bone.

208. RUPIA ESCHAROTICA. Model of the right lower limb of an infant, presenting bullæ and ulcers consecutive to bullæ. The earliest stage of the affection is seen in certain vesicles, ranging in size from a pin's head to a split pea. The largest of them are flattened, and have red areolæ round them. Some of them, however, appear to have undergone a great increase in size and to have formed bullæ, for two bullæ of the diameter of a shilling may be observed, one near the knee, the other close to the crest of the ilium. The remains of other bullæ are also visible, some of which present a superficial excoriation of their bases, while others form deep sloughy-looking ulcers, with vertical edges, and much dusky redness of the surrounding surface.

The child was pale and flabby, and very imperfectly nourished, the mother, who was still suckling her baby, being in very indigent circumstances. She was admitted into the hospital, and measures were taken to improve her health. In a fortnight the child was well, without any medicine having been given to it.

209. RUPIA ESCHAROTICA. Model of the posterior surface of the right upper limb of an infant, presenting several ulcers with an ash-coloured base and vertical edges, surrounded by a broad zone of a tawny red colour. The first stage of the disease is seen in a single vesicle, of about the size of a millet seed, just below the elbow, and near the wrist is another bleb which has just formed a crust, and in the floor of which ulceration has already commenced.

The child was an out-patient, and is said to have been imperfectly nourished.

ECTHYMA.

A chronic cutaneous affection, characterised by the development of isolated pustules, which may break out in succession during a long period, but each of which quickly dries up into a dark-coloured crust. The distinction between this and other pustular affections (such as impetigo) is that the pustules spread centrifugally, and are seated usually at a distance from one another. Each crust, therefore, whatever its size, is commonly formed from only a single pustule.

210. ECTHYMA. Model of the back of a child, presenting scattered vesicles of all sizes, from a pin's head to a split pea. The larger ones have opaque contents, and are passing into pustules; and some of them are of irregular form, having apparently resulted from the coalescence of two originally distinct vesicles. Many have a marked central depression or umbilicus. The skin round almost all of them is reddened, and it often shows an edge of desquamating cuticle. Some are already drying up into scabs.

211. ECTHYMA. Model of the right leg and foot of a woman, presenting a few scattered vesicles of somewhat flattened form. It is stated that they were opaque and surrounded by red zones. On the leg is a reddened patch, with some thin scales upon it, perhaps the remains of an older vesicle, which must have attained a considerable size.

There is no history of the case from which this model was taken. It may be doubted whether the eruption was not syphilitic, or, on the other hand, whether it was not due to some local irritation, as, for instance, the presence of the sarcoptes hominis.

ECTHYMA. Two models (212 and 213) of the chest of a young person affected with an acute pustular eruption in different stages.

212. In this model the eruption is seen to consist of a number of isolated pustules, full and round, and of various sizes, some

being exceedingly minute, others as large as split peas or even a little larger. Each of the larger ones is surrounded by a red halo, and most of them present a central depression or umbilicus. Some of the spots have aborted, and have already formed scabs.

This model was taken on the twelfth day of the eruption.

213. In this model the same part is shown as it appeared three days later, when almost all the pustules had dried up into massive crusts of a yellowish-brown colour. The red halo round each spot has faded and assumed a brown tint, with rings of desquamating cuticle, giving to the eruption the so-called "lurid" aspect.

This model was taken on the fifteenth day of the eruption.

214. ECTHYMA. Model of the back of the left forearm of an adult patient, presenting an eruption of which all the stages may be recognised. There is first a faint pinkish macula. Next comes a vesicle, of about the size of a millet seed, surrounded by a disproportionately large red halo. The next is a brownish crust the size of a split pea, with an edge of desquamating cuticle on the reddened circle which surrounds it. After this the affection may abort, the crust falling off and leaving a reddened macula (which would not disappear on pressure); or, on the other hand, the inflammation may go on spreading centrifugally, and the crust thus become much larger and thicker than before.

There is no history of this case, but in all probability the eruption was due to some local irritation of the skin, such as the application of a strong solution of soda, &c.

215. FURUNCULI and ECTHYMA (?). Model of the outer side of the right thigh of a patient, presenting several boils, and also several scattered masses of crust, surrounded each by a halo of a livid purple colour. The crusts appear to have formed by centrifugal extension from a single centre, and so far the name of ecthyma may fairly be applied to them. It is probable that they commenced in the same way as the furunculi, in an inflammation of a single hair-follicle, the difference being that in some cases the inflammatory action

spread along the surface, while in others it extended deeply towards the subcutaneous tissue.

216. ECTHYMA vel RUPIA. Model of the face of a boy, presenting several large crusts of varying sizes, which have evidently arisen by the centrifugal extension of inflammation from a single original vesicle or pustule. The most recent is just to the left of the nose. The crusts are of a dark green colour, and are very thick and rough, and some of them of a conical form. A brownish liquid is oozing from them, evidently containing much blood. There is a marked symmetry in the arrangement of the principal crusts. The skin round them is greatly reddened and swollen, and below the chin there is a swelling of considerable size, which probably was of brawny hardness, and contained a mass of inflamed lymphatic glands.

There is no history of the case, except that the affection "appeared to be due to scrofula."

217. ? ECTHYMA. ? RUPIA. Model of the face of a woman, presenting several crusts of dark colour and of rather irregular form, which seem to have been formed by centrifugal extension. There are also many stains of dusky brown colour on the forehead and cheeks, and some indication of the development of vesicles, and of their rupture while still small, with the pouring out of a thick honey-like pus. Both lips are covered with thick masses of black crust.

The aspect of the affection is such as to suggest a syphilitic origin, and Mr. Towne tells me that Dr. Addison took this view of the case. The appearance of the lips, however, is not like anything that I have seen in syphilis. In the former catalogue the question of syphilis is not alluded to; but it is noted that there was some constitutional disturbance.

PSORIASIS.

A chronic inflammatory affection of the skin, attended with the formation of red spots or patches which are covered with adherent epidermic scales. Neumann has shown that the papillæ become much enlarged, and that they, and, indeed, the whole of the superficial layer of the corium, contain leucocytes, which are especially numerous along the course of the blood-vessels. The layers of the epidermis are also considerably thicker than natural.

The scales in psoriasis are generally heaped over one another, or "imbricated." They have a silvery lustre, due to the presence of air in the interstices between the lamellæ of which they are made up.

Psoriasis is especially apt to occur on the points of the knees and elbows; and it affects all parts of the extensor surfaces of the limbs much more commonly than the flexor surfaces. It is often transmitted from parents to their offspring, and is particularly apt to break out in children at about six years of age (Neumann). In some females it developes itself only during pregnancy or lactation. In the great majority of cases no cause for it can be discovered, the patient being apparently in robust health when attacked by it. It has a very strong tendency to recur over and over again in the same individual.

Numerous varieties of psoriasis have been described by authors. When the spots are very small the affection is called a P. punctata; when they are somewhat larger it is a P. guttata; when they reach the size of a coin it is a P. nummularis; when they run together to form large patches it is a P. diffusa. But it very rarely happens that the eruption has everywhere the same form. These so-called varieties are really successive stages in the development of the affection, in the course of which the spots get larger and larger, and after a time coalesce with their neighbours. When they have reached a certain size the inflammatory action generally subsides in their centres. Thus each spot becomes a ring, while the patches form irregularly festooned lines. The affection is then termed a P. circinata.

In some cases, lastly, the scales remain adherent as the spot enlarges, so as to acquire an unusual thickness. They may even form conical masses, just like the crusts of rupia. Dr. Anderson terms this variety of the affection a P. rupioides. It is well represented in our collection by a series of models, most of which were taken many years ago from cases under Dr. Addison's care.

By Willan and Bateman some of the forms of psoriasis were separated from others, and designated lepra. All modern writers are agreed that no such distinction exists; and as the word lepra suggests a relation to true leprosy (which is quite another disease) psoriasis seems to be the better name of the two. In England some attempts have been made to retain the use of the term lepra, but this is gradually dying out. The disease is called psoriasis by all German and French writers, and also in Scotland and in the United States.

In addition to the varieties already mentioned Willan and Bateman described a *lepra nigricans*, in which the spots were of a livid or blackish colour. This is illustrated by three of our models, all of them from the lower limbs of patients affected with the disease. The peculiar colour is, in fact, simply due to venous congestion, and the recognition of this as a distinct form of the disease is quite unnecessary.

On the other hand, some affections to which Willan and Bateman gave the name of psoriasis can no longer be included under this designation. These are chiefly such "local" species as the "P. palmaris" and "P. labialis." They are now known to be generally of an eczematous nature.

218. Psoriasis (Punctata et Guttata). Model representing the right shoulder and arm of a man affected with this disease. The larger spots are covered with slight white scales, but many of the smaller ones appear simply as raised red points.

The patient had been troubled with the complaint for three or four years.

219. Psoriasis (Punctata et Guttata). Model of the left arm of a patient affected with this disease, especially on the posterior and outer surfaces. Even the smallest points of the eruption are covered with opaque white scales.

220. Psoriasis (Punctata et Guttata). Model of the chest and abdomen of a child, presenting numerous scattered points of psoriasis. Some of the smallest appear as red papules, without any scales; others have a white scale on their summits. Some of the larger spots have been injured by scratching, which has removed the scales, exposing a surface covered with tender epidermis and disposed to bleed readily.

221. Psoriasis (Punctata, Guttata, et Nummularis). Model of the anterior part of the right thigh, presenting small squamous spots and patches reaching the size of a fourpenny piece.

222. Psoriasis (Guttata et Nummularis). Model of part of the right thigh and leg of a patient, presenting numerous spots and patches of psoriasis, with but little redness.

223. Psoriasis (Punctata, Guttata, Nummularis, et Circinata). Model of the left side of the chest and abdomen of a man affected with spots of psoriasis of various size, from that of a millet seed to that of a sixpenny piece. The larger spots are distinctly circinated, the disease subsiding in their centres.

The patient was a cabman, æt. 35. He had had the eruption for six or seven years. It nearly subsided in the winter and became severe in the spring.

224. Psoriasis (Nummularis). Model of a left elbow and forearm, on which are several scaly spots of psoriasis of moderate size. Over the elbow is a large irregular patch, evidently formed by the confluence of a number of smaller spots of the same affection.

225. Psoriasis (Guttata; Nigricans). Model of the outer part of the right leg and foot of a young man, showing scattered raised spots of psoriasis, many of which are of a livid colour. The scales are few and thin.

The man was twenty-seven years of age, and an out-patient.

226. Psoriasis (Guttata, Nummularis, et Circinata; Nigricans). Model of the outer and back part of the left thigh of a patient, presenting numerous spots and patches of psoriasis, all of which are of a remarkably dark livid purple colour. There are also numerous brown stains, evidently corresponding to patches of former date which had disappeared.

In the former catalogue it is stated that large patches of the disease were observed on the whole body, but not whether these all had the peculiar lurid purple tint.

227. Psoriasis (Nummularis; Nigricans). Model of the right knee and leg of a patient affected with psoriasis. The patches are of a livid purple colour, and covered only with thin scales.

The patient was a washerwoman, æt. 50.

228. Psoriasis (Nummularis et Circinata). Model of the right shoulder and breast of a young woman, presenting numerous spots of psoriasis of various sizes, most of which are more raised towards the periphery than at the centre, and some of which are forming rings of irregular outline. The colour of the eruption is said to have been "light red;" but apparently the model has become still paler in course of time.

229. Psoriasis (Circinata). Model of the right knee and leg of a young patient, showing several irregular scaly rings of no great breadth, with defined raised red margins. The skin within the rings is healthy, and presents only scattered spots of the squamous eruption. The model, therefore, represents an advanced stage of psoriasis, in which the centres of the patches have resumed the characters of healthy skin.

230. Psoriasis (Guttata, Nummularis, et Circinata). Model of the chest and abdomen of a young woman affected with psoriasis. This is seen in all stages, from small red spots up to patches several inches in diameter. All the larger ones are getting well in their centres, and the same may even be observed of many of those which are not of very great size. As a whole, the eruption is much less scaly than is usually the case in psoriasis.

Katherine G—, æt. 16, was admitted into the Clinical Ward under Dr. Fagge's care on July 30th, 1867. She said that she had had the eruption since she was ten or eleven years old. It quickly assumed a circinated character, and she had never since been free from it. On admission the arms and legs presented patches of ordinary psoriasis.

She improved greatly under the local application of tar, which was rubbed into the affected parts. She was discharged from the hospital on August 27th for some irregularity of conduct.

231. Psoriasis (Circinata). Model of the left side of the neck

of a patient, presenting numerous sinuous red lines covered with white scales. These extend slightly downwards over the upper part of the sternum, but not at all backwards over the trapezius to the back of the neck. The case must be regarded as an unusual one, for the lines are so close together that it is difficult to understand how they could have arisen, in the ordinary way, out of patches of psoriasis; but the name given to the model in the older catalogue was psoriasis gyrata.

232. PSORIASIS (DIFFUSA). Model of the face of a girl, all parts of which are covered with the disease, except round the mouth and nostrils and along the margin of the scalp. The scales have many of them a yellowish colour, as if dried inflammatory products were contained in them.

From a girl, æt. 10, in Clinical Ward, under Dr. Wilks' care, in April, 1863. Her whole body was covered with a squamous eruption, which had existed six months. Her mother was said to have suffered for twenty years from the same affection. Under treatment by arsenic the disease nearly disappeared.

PSORIASIS (RUPIOIDES). Two models (233 and 234) illustrating a case of psoriasis in which the scales accumulated, so as to form large masses, resembling the crusts of some pustular affection or even of rupia.

233. This model represents the back of the left forearm and hand, which are closely covered with small raised masses of scales, which look not unlike the crusts of a discrete smallpox.

234. This model represents the left knee and leg, on which are larger conical masses, of a yellowish or greenish-brown colour, surrounded at their base by a red border and resembling the crusts of rupia very closely.

The patient was a young girl of respectable family, who was in the hospital between thirty and forty years ago under the care of one of the physicians, who pronounced the affection to be syphilitic, and placed her in Patience Ward. Some years later, a second patient came under observation, affected with the same eruption; and it was then admitted that the view taken of the present case had been erroneous. It was from this second patient that models 235 and 236 were taken.

See the 'Guy's Hospital Reports,' series iii, vol. xiii, p. 205.

PSORIASIS (RUPIOIDES). Two models (235 and 236) taken from a patient affected with this form of psoriasis.

235. This model shows the extensor surface of the right knee and leg, on which are several large masses of a greyish-brown colour, very much raised, and many of them marked with concentric rings, so as closely to resemble the crusts of rupia. They are surrounded by a red border, where the skin is desquamating slightly.

236. This model was taken from the right elbow and forearm of the same patient. It shows a number of spots of different sizes, some of which seem to differ in no respect from those of an ordinary psoriasis nummularis, while others approach in character to those shown in the previous model.

The patient was a boy, who came from Holland.

237. PSORIASIS (NUMMULARIS, RUPIOIDES). Model of the left thigh and knee of a child, on the outer side of which are several scattered spots of psoriasis, reaching the size of a sixpenny-piece, some of which are covered with conical masses of scales like the crusts which are seen in cases of rupia.

From a patient sent to Sir W. Gull by Mr. Owen.

238. PSORIASIS (GUTTATA, RUPIOIDES). Model of the abdomen and right thigh of a child, presenting numerous scattered squamous spots, which are much raised and of a yellowish-brown colour and smooth, so that they look like the crusts of some pustular affection (particularly like those seen in the so-called "stone-pock" or "horny-pock" of variola). The epithet "rupioides" is, therefore, not particularly applicable; but it may serve to indicate the analogy which exists between this case and those in which the masses of scales resemble the crusts of rupia. Many of them are surrounded by a delicate, white, scaly border. On the thigh is a large irregular patch, looking as if it were impetiginous in character.

From a girl, æt. 4, admitted into the Clinical Ward under Dr. Fagge in April, 1867. The eruption had appeared three weeks before. While

she was in the hospital the back became covered with an ordinary psoriasis guttata. She got well in about two months.

See the 'Guy's Hospital Reports,' series iii, vol. xiii, p. 206.

The pathological nature of psoriasis is so like that of eczema (as will appear from the brief description that I shall have presently to give of the latter disease) that we need feel no surprise at sometimes finding the two affections associated together. The wonder is rather that psoriasis should so frequently last for many years, or return again and again, without losing any of its special features. The inflammation has only to take on a somewhat more active character, leading to the effusion of a serous liquid, and the eruption at once becomes eczematous. The following models illustrate the occurrence of the two affections in the same patient.

239. PSORIASIS. ECZEMA. This model represents parts of the left thigh and leg of a child, on which are shown several large patches of a reddish-brown colour, covered with thin scales, but also inflamed and apparently eczematous. The seat of the eruption (on the front of the knee, &c.) and the form of the smaller patches are such as are seen in psoriasis, and the view is doubtless correct which is expressed in the older catalogue, in which the model is entitled "lepra eczematodes." According to this catalogue opaque vesicles are to be seen here and there on the patches.

240. PSORIASIS. ECZEMA. Model of the flexor surface of the right elbow, with parts of the arm and forearm. A large red oozing surface is seen, covered with yellowish scabs and scales, and also presenting incrustations of dried blood. The affection is now evidently eczematous; but beyond the affected area there are many circular, dry-looking patches, like those of a psoriasis nummularis. The margins of the large raw surface also are sharply defined and festooned, so that it appears to have been originally made up of a number of smaller patches. It is, therefore, probable that the case was originally one of psoriasis. (It is termed in the older catalogue lepra eczematodes.)

241. PSORIASIS. ECZEMA. This model represents the outside

of the right elbow of a young woman, on which may be seen numerous irregular raised patches, some presenting slight scales, while others are covered with yellowish crusts, evidently eczematous. There may also be noticed numerous small scattered papules, which are also, doubtless, of an eczematous nature.

The appearances represented in the model are quite consistent with the supposition that the disease was from the first an eczema. But in the former catalogue it was named "lepra vulgaris et eczematodes," and it is distinctly stated that it was taken from a young woman affected with lepra (psoriasis). We must, therefore, suppose that the eczema was a complication.

242. PSORIASIS. ECZEMA. Model of the scalp and forehead of a man affected with a disease presenting rather remarkable characters. On the forehead there are some scattered spots of a reddish-brown colour, covered with scales. On the top of the head there are raised thick crusts, having elongated semi-cylindrical masses disposed in such a way as to suggest the idea of a long piece of some soft substance like putty having been deposited upon the surface in tortuous lines, so as to have a vermiform appearance. At one spot, where one of these crusts has been detached, the raw surface of the rete mucosum is exposed.

This model might be taken for one of eczema impetiginodes, but in the older catalogue it is designated lepra eczematodes, and I have no doubt that this view of the case is correct, as the appearance of the spots on the forehead accords with the supposition that the eruption was primarily a squamous one, although now complicated with eczema.

243. PSORIASIS. ECZEMA. Model of the right lower limb of a girl affected with an eruption. The surface of the knee and upper part of the calf are universally inflamed, and covered with thick yellowish-white crusts, which look exactly like those of an ordinary eczema impetiginodes. Below this are some isolated round spots, from the size of a split pea to that of a sixpenny piece, covered with white scales, and on

the dorsum of the foot and toes some larger patches of indefinite form and character.

Were it not for the smaller spots on the lower part of the leg, the affection might be supposed to be simply eczematous. Indeed, their presence is not conclusive, for eczema is sometimes squamous at its commencement, although the scales are not often so white and large as they appear to be here. In the older catalogue, however, the model was designated "lepra eczematodes," and I have thought it best to retain this view of the case, which possibly, at the time when the patient came under observation, was established by the history, and by the appearances presented by other parts.

All that can now be known is that the girl was eleven and a half years old, and "affected with struma, and the disease inveterate."

244. PSORIASIS. ECZEMA. Model of the back of the right elbow, forearm and hand, of a man suffering from a severe cutaneous affection. The skin is seen to be reddened, and a large part of its surface is raw and oozing, apparently from the separation of large masses of scales which previously covered it.

A careless observer might mistake this case for one of an impetiginous eczema; but on close examination its squamous character can be plainly recognised. Mr. Towne remembers that the inflamed state of the affected parts was at the time attributed to a hot bath which the patient had had. This corresponds with a statement in the former catalogue that the disease was "lepra, aggravated by a hot bath."

PSORIASIS. ECZEMA. Five models (245 to 249), all from a single patient, illustrating various stages of psoriasis, and also the appearances which arise when it becomes complicated with eczema.

245. The affection shown in this model is purely a psoriasis (*punctata* et *guttata*). The parts represented are the left shoulder and back of the arm and elbow, and they are covered with scattered scaly spots. The earliest stage is seen in a minute red point, which becomes raised and squamous as it increases in size. On the olecranon there is one spot as large as a sixpenny piece, and a little diffused redness, with

some spots round its margin, looking rather as if there had previously been a larger patch of the disease there.

246. Model of part of the right lower limb, showing several patches of psoriasis, from the size of a sixpenny piece to that of a half-crown. In two places adjacent patches have coalesced. Over the patella—the seat of election for psoriasis—there is a still larger patch, of oval form. The masses of scales have a yellow moist look in this model, as if there were a tendency to the pouring out of discharge, and, in fact, to the supervention of an eczematous condition.

247. In this model the eczema is still more marked, and, indeed, predominates over the psoriasis. The parts represented are the right side of the head and neck, a large surface of which, including the ear, is red, moist, and oozing. On the scalp are thick yellow masses, matting the hairs together. These were described in the former catalogue as "thick scales of lepra on an inflamed surface," but they could hardly be distinguished in the model from the crusts of an ordinary eczema impetiginodes. On the other hand, the external ear was spoken of in that catalogue as "presenting the characters of eczema, the skin red and discharging." Over the parotid region the disease is bounded by a tolerably definite border. Beyond this, on the cheek, are numerous pale spots of psoriasis guttata with slight scales upon them. These afford the only indications, in this model, of what was the original nature of the affection. There is some redness and inflammation of the eyelid, showing (as is observed in the former catalogue) that the patient was a strumous subject.

248. In this model, which represents the anterior surface of the abdomen, the left hip and groin, and the external genital organs, an affection is seen which appears to be a simple eczema. The diseased parts are greatly reddened, but the redness shades gradually off at its periphery into the colour of the healthy surface. The superficial part of the cuticle is peeling off in thin scales, and the affected surface is moist and raw looking, and covered here and there with yellowish crusts.

249. This model shows the palm of the right hand of the same patient, the surface of which is uniformly reddened and rough from desquamation of the cuticle, and presents numerous furrows, some of which about the wrist form moist open fissures, but the majority have a black appearance from being soiled with dirt.

The model affords an excellent instance of what is a comparatively rare affection, a true *psoriasis palmaris*, as distinguished from the common disease of the same part, which is generally either eczema or a syphiloderma. Even in this case the open fissures are probably due to the complication with eczema, which is so well marked and even predominant in the models taken from other parts.

250. PSORIASIS PALMARIS? Model representing the palm of the left hand of a patient, the cuticle of which was very greatly thickened, so as to form hard ridges and wart-like elevations, very much resembling those seen in icthyosis hystrix. The skin around is reddened.

The patient, Susan C—, æt. 65, was under the care of Dr. Wilks in December, 1859. The affection was so much like ichthyosis that the first opinion formed about it was that it must be congenital. But she said that it had commenced only three months before. The palms of the hands then began to burn and itch, and the skin soon afterwards became thickened. She took the liquor potassæ arsenitis for three weeks without benefit, the skin round the affected parts being inflamed and hot.

This model should be compared with 249, which is a true psoriasis of the palm, and with 328, of pityriasis pilaris, and also with 289, which was formerly called psoriasis, but in which the affection was really an eczema. In the present case it would be very difficult to say whether the disease was related to eczema, or rather to psoriasis. I have, therefore, preferred to retain the name originally given to it. But I must point out that the practice of using the name psoriasis palmaris for almost all affections of the palm was essentially loose and unscientific, the cases included under this designation belonging really to several distinct diseases (many of them to syphilis), and their only point of agreement being that the skin of the palms was scaly and inclined to form cracks and fissures.

In endeavouring to give a definition of psoriasis I have stated that it is a chronic affection. In very rare cases, however, it developes itself with extraordinary rapidity, and it may even prove fatal

within a period of a few weeks. The following model was taken from a remarkable case of this kind, in which, however, the eruption was to some extent complicated with an eczema.

251. PSORIASIS ACUTA. ECZEMA. Model of a boy's face, the cuticle of which was everywhere peeling off, or divided into little squares, very like those which are seen in some forms of ichthyosis. Between them the true skin was fissured and oozing.

Henry C—, æt. 8, came among Dr. Fagge's out-patients on December 20th, 1870, and was afterwards admitted under the care of Dr. Wilks. He had had rheumatic fever two years previously. He had long been infested with thread-worms. His illness began a fortnight before his admission, on a Thursday, when he noticed "a pink stain" round his eyes and on the palms of his hands. A day or two later it appeared on his neck. The pink parts afterwards became red and scaly. On the following Sunday he observed that his back was affected in its whole length along the spine, but not on either side of it. Then his mouth, lips, and other parts of his body became similarly affected.

On admission the face was covered with brownish-white scales. Round the mouth the skin was marked with radiating lines. The scales were less white and less imbricated than is usual in psoriasis, and their shape was quadrilateral. Thus the affection looked much like an ichthyosis. On the back of the neck the scales had a brilliant silvery lustre, which towards the dorsal region gradually passed into a brown. Over the front of each axilla there was a large, white, scaly patch, and similar patches were present over the bends of the two elbows and also over the olecrana. The flexures of the wrists and of all the joints of the fingers were covered with large scales. The cuticle of the chest was brown and thickened, with occasional small islands of healthy skin. On the abdomen there were numerous small scattered red papules, some of which had minute white scales upon their summits.

Over the buttocks and sacrum there was a large white patch. The anterior surfaces of both thighs and legs were mottled with brown spots. The popliteal spaces were quite free. Over the ligamentum patellæ there was on each side a white patch. The feet were clear.

There was no infiltration or thickening of the skin at any part. In some places a few fissures were present, which bled. The boy complained of but little itching and no pain. The heart and lungs appeared healthy. The urine was of sp. gr. 1011; it contained no albumen.

After his admission the eruption at first went on to assume more widely a white scaly appearance. In a few days, however, the skin became inflamed beneath the white silvery scales, especially about the

neck and shoulders. Numerous rhagades formed, and a profuse discharge was poured out. After a time the scales became (so to speak) undermined by the discharge, which had an offensive odour. The boy then began to suffer much smarting pain, causing him to cry out. His pulse became rapid, he grew very weak, sordes formed round the lips, the skin of the back became extensively ulcerated, and he died on the morning of the 10th of January, just three weeks after his admission.

A post-mortem examination was made by Dr. Moxon, who reports that the whole of the surface, from the crown of the head to below the patellæ, was covered with dry, flaky, scaly crusts. In general, the disease decreased in intensity from above downwards, but over the elbows and knees it was more marked than on parts higher than these. On the fronts of the thighs there were early patches, in which the affection had the form of scaly points about the roots of the hairs. On the back there were numerous sores, penetrating half-way through the cutis. These were situated especially over the spines of the scapulæ and over other bony prominences. The pericardium was rather closely adherent. The lungs, liver, and kidneys were healthy. The mucous membrane of the stomach had a slight pink tinge, and was lined with a little mucus.

LICHEN.

A chronic inflammatory affection of the skin, which, in its essential histological characters, probably does not differ from psoriasis or eczema, but which yet presents features of its own, being attended with an eruption of papules that neither pass into vesicles nor become coated with a thick layer of scales.

The tendency of modern dermatology has been to include under eczema a very large proportion of the affections that were formerly placed under the head of lichen. Thus M. Hardy, in his second edition, placed under the head of eczema an important group of cases, which he had before taken great pains to distinguish, as resulting from chronic lichen. So, again, Hebra limits the use of the word lichen to two definite species, which he terms respectively lichen ruber and lichen scrofulosorum; and more recent German writers appear to follow his teaching without reserve.

I am, however, convinced that cases occasionally occur which are attended with an eruption of papules, and which are by no means closely allied to the eczematous affections, nor, on the other hand, capable of being included in either of Hebra's species. These cases

require to be further studied; but provisionally it is convenient to include them under the name of lichen.

Most of the following models speak for themselves; but with regard to two varieties some explanation is needed. L. circumscriptus was described by Willan and Bateman, and I am satisfied that it is a definite affection. It occurs chiefly on the chest and back; the papules are arranged in rings or patches of a circular form. L. planus was first described by Mr. Wilson. It occurs particularly on the hands and forearms. The papules are flat, and have a peculiar glazed shining appearance as though they had been burnished.

252. LICHEN. Model of the chest of a child, presenting an immense number of bright red papules, scattered irregularly over the surface. Many of them are exceedingly minute. The skin generally displays a mottled redness; and, according to the older catalogue, ecchymosed blotches are also present.

The patient was a girl, æt. 12. It is stated in the older catalogue that the colour of the eruption was modified by external applications before the model was taken; it had previously been more purple.

253. LICHEN. Model of the right thigh of an adult patient, presenting numerous scattered papules of a dull red colour. Some of them have been injured by friction, and have small crusts of dried blood on their summits. One or two of them are passing into vesicles.

It is a question whether the case may not really have been one of papular eczema rather than of true lichen.

LICHEN. Two models (254 and 255) from a case of lichen.

254. Model of the right lower limb from the groin to the knee. In front and to the inside of the knee are a number of scattered pale brown papules, most of them isolated, some running together. A few similar papules extend up the inner side of the thigh to the groin, where they again cohere so as to form patches.

255. Model of the right forearm of the same patient, presenting on its posterior surface a more advanced stage of the same

eruption, in the form of very irregular patches. A few isolated papules may also be seen.

The patient was a child, æt. 7, and came under observation in the year 1857.

256. LICHEN. Model of the right knee and leg of a young woman, presenting numerous papules of lichen. These are situated at pretty uniform distances from one another, and probably corresponded in position with the hair-follicles of the skin. They are most of them arranged in clusters, especially on the inner side of the limb. This does not appear to be an important character, but it led to the case being designated in the previous catalogue as one of lichen circumscriptus.

257. LICHEN (CIRCUMSCRIPTUS). Model representing the back of an adult patient affected with an eruption which certainly seems to require some designation beyond that of simple lichen, and to which the name of lichen circumscriptus is strictly applicable. It is seen in all stages, from isolated papules to delicate rings, themselves made up more or less distinctly of papules, and reaching the size of a fourpenny piece. These rings have discoloured centres, apparently indicating that they were formed by concentric growth from an original papule.

258. LICHEN CIRCUMSCRIPTUS. Model of the back of another patient, affording a remarkable instance of the same eruption. The isolated papules are larger and of a brighter colour than in the former case. They are arranged in clusters and rings, which cover a much more extensive area, being as large as half-crowns or five-shilling pieces, and even cohering together so as to form a diseased surface several inches in extent. The whole of this area presents a greenish brown discoloration, exactly like that in the former model; and it has also some scattered papules, some of which are apparently of more recent formation, while others occupy the lines along which rings that were at one time distinct have coalesced with one another.

259. LICHEN PLANUS. Model of the left forearm and part of the arm of a patient affected with this disease. It consists of papules of a crimson-red colour, with flattened summits, which towards the elbow are isolated from one another, whereas those near the wrist have coalesced, so as to leave only a few irregular islets of healthy skin.

The model, I think, gives one the impression of an eruption less raised above the level of the rest of the surface than was really the case. The affection looks almost like an exanthem. The papules also fail to present that shining surface (looking as if they had been burnished) which is so characteristic of lichen planus.

E. B—, æt. 45, came as an out-patient under Dr. Fagge's care on November 26th, 1867. She said that she had been quite well until a month before, when, after washing, a slight rash appeared above her wrist. This was perfectly dry. On the front of the left forearm were shining papules of a purplish-red colour, cohering together into flat masses. Several similar papules were scattered over the right forearm, both in front and behind, and others were seen on the backs of both arms. There was much itching.

She was ordered to take Mist. Rhei comp. ʒj bis die, and to apply a lotion containing two grains of the bichloride of mercury to the ounce of water.

On December 10th it is noted, "She has become decidedly worse. The characteristic red flat papules are now present on the backs of the hands. On the forearms they have coalesced into larger livid purple patches. At the bend of the left elbow are several linear elevations, looking very like raised scratches, covered at their summits with whitish lines. On the abdomen and thighs are several livid spots, of very ill-defined character, but having scales upon them. There are none on the knees."

She did not again appear among the out-patients, and as her address unfortunately was not taken, it was impossible to ascertain what course the disease afterwards took.

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 345.

260. LICHEN PLANUS. Model of the right forearm and part of the arm of a woman affected with this eruption along the whole length of the inner side of the limb.

E. L—, æt. 31, came among Dr. Fagge's out-patients for the first time on June 18th, 1867. She said that she was always weak, and had not very good health. She was nursing her youngest child, who was nine

months old. The eruption began six weeks before on the wrist. It seemed to have first appeared in the form of flat papules. It had gradually extended up the arm, and had recently reached the chest.

"Along the inner side of the right forearm is a line of scattered flat papules, many of which cohere into patches covered with slight scales. Beginning immediately above the wrist, the line runs upwards to the inner side of the biceps muscle. On the ulnar side of it is a second group of scattered papules, running up to the internal condyle. Along the upper arm the papules are much finer and more scattered; but they are still arranged in a linear manner. The affection courses along the anterior fold of the axilla, and passed downwards and inwards to the middle line, near the ensiform cartilage. On the chest the papules are still finer than on the arm, and they are shiny in appearance, so that the eruption suggests the notion of a dry 'zoster.' The back is free.

"On the left forearm there are a few similar papules on the radial side, near the wrist.

"The eruption is very irritable, not more so by night than by day."

July 2nd.—"The papules now extend down the palm to the root of the ring finger."

She was ordered to take a grain of Ferri Sulph. in the Mistura Quiniæ t. d., and to apply a lotion containing four grains of bichloride of mercury and two drachms of dilute hydrocyanic acid in four ounces of water.

23rd.—"There is now no itching or tingling except when the lotion is applied. No fresh papules have appeared. The old ones are paler and less raised."

31st.—"The eruption can now scarcely be felt above the surface, and the redness has much diminished. The affection has entirely disappeared from the left forearm."

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 345.

261. LICHEN URTICATUS (? URTICARIA LICHENOIDES). Model of the face of a woman affected with an eruption which presents remarkable characters, somewhat intermediate between those of urticaria and those of lichen. It consists of scattered raised papules and tubercles, the smallest of which are not larger than millet seeds, while the largest are half an inch in their longest diameter. All but a few of the biggest are circular in outline. They are of a bright red colour, but (with the exception of the very smallest) they all have flattened summits, and these have a greyish opaque

appearance. The part most thickly covered with them is the forehead; next, the outer parts of the cheeks and the chin. The arm is comparatively free.

Sarah M—, æt. 36, had had the eruption for seven years. It came first on the right leg, then on the arms and face. The parts affected became swollen and then burning hot. There was no discharge from it.

The question whether this curious case should be called an urticaria or a lichen depends entirely upon the duration of the individual papules and raised patches. The report unfortunately does not specifically allude to this point, but appears to imply that the complaint had taken a chronic course. Otherwise, from the appearances presented by the model, I should rather have inferred that the eruption had recently come out, and that the long duration of the case was due to the occurrence of successive attacks of a similar kind, the papules lasting individually only a short time, as in cases of urticaria.

262. LICHEN? Model of the face of a patient, presenting numerous scattered papules. These are most numerous on the nose and on the parts of the cheeks near the nose, but there are also some round the right angle of the mouth and on the chin. Some of them appear to be of the same colour as the rest of the face, but most of them have a faint rose-red tint, from injection of the small vessels ramifying over them.

The real nature of this case is obscure, and in calling it lichen I mean rather to express the fact that the eruption consists of papules than to commit myself to any opinion as to the pathological character and alliances of the eruption. Dr. Addison and Dr. Gull regarded it as a form of vitiligoidea, but I think that our present knowledge of the various forms which that affection may assume, gained by the experience which has accrued since the publication of their paper on the subject, will not allow us now to adopt this view. I should be disposed to think that the real alliances of the case now under consideration are with acne, especially with acne rosacea. But I hesitate to adopt this opinion, because it is clear that Dr. Addison and Dr. Gull must have taken fully into consideration the question whether the affection could be an acne.

The patient, a young woman, æt. 24, is reported as having

been admitted into the hospital with a peculiar eruption, extending across the nose and affecting both cheeks. It consisted of shining tubercles, varying from the size of the smallest papule to that of ordinary acne. They were of a lightish colour, with here and there superficial capillary veins meandering over them, giving them a faint rose tint. The changes they underwent were very slow; whilst some advanced, others subsided. The further course of the case was not ascertained.

See Dr. Addison and Dr. Gull's paper in the 'Guy's Hospital Reports,' series ii, vol. vii, p. 267.

263. LICHEN. Model of a left leg swollen by œdema, and presenting an eruption having remarkable characters. This consists of large papules, many of which are as large as split peas, and therefore might fairly be termed tubercles. Most of them are of an orange-red colour, and the minute vessels ramifying beneath their surface are much injected. It is said that in some parts there was ecchymosis. Some of the papules are of the same colour as the rest of the skin. The papules are most numerous in a broad zone surrounding the middle of the leg, but a few are scattered higher up, one on the inner side of the knee being conspicuous on account of its large size. Over the broad zone above mentioned the skin is of a diffused greenish-yellow colour, and is described in the former catalogue as having been in some places almost purple.

No record of this case has been preserved, beyond the facts that there was "no history of syphilis, and that the patient left the hospital partially relieved."

The nature of this eruption appears very obscure, and the name which I have given to it is simply a provisional one. In the former catalogue the model is placed after those representing cases of xanthelasma, and it is designated "vitiligoidea? anomalous tubercle." There is, however, no analogy between its characters and those of any case of xanthelasma that I have seen or heard of; and I think that a sufficient number of instances of that disease have now been observed to warrant the conclusion that we know all the forms that it may assume. There is, therefore, at the present time, less ground for placing the case with those of xanthelasma than there was when the former catalogue was being drawn up.

ECZEMA.

A chronic inflammatory affection, characterised by the effusion of serum or pus, by redness of the affected parts, and very often by the development of minute vesicles or pustules.

By Willan and Bateman eczema was believed to be always a vesicular disease; and they described as distinct from it a number of affections, which have since been shown to be among its varieties. One of the most important steps in the progress of modern dermatology has, in fact, been the widening of the range of application of the term eczema. Hardy in Paris, and Hebra in Vienna, seem to have independently worked this out, and Sir W. Gull several years ago taught the same thing at Guy's.

In this wide acceptation eczema includes a very large proportion of all cutaneous affections. I think that a modern writer, in classifying the cases of skin diseases that came under his observation, found that one half of these were examples of eczema. A good arrangement of its varieties is, therefore, extremely important, although the construction of such an arrangement offers many difficulties, from the frequency of mixed and intermediate forms.

There is, I think, no better way of classifying the species of eczema than the following:

I. In certain forms the discharge is serous; they may be said to be three in number:

1. *E. vesiculosum*, in which the effused fluid collects in minute vesicles, generally not larger than pins' heads.

2. *E. rubrum vel madidans*, in which the fluid is poured out by all parts of a reddened surface, perhaps presenting some crimson points, which may be taken as the representatives of vesicles that have failed to appear in consequence of the thinness of the diseased cuticle.

3. *E. rimosum*, in which there are numerous fissures extending into the corium, which bleed very readily when scratched or torn, and which also pour out a large quantity of serum.

II. Next may be taken those forms in which the discharge is sero-purulent or even pus. They are—

4. *E. impetiginodes*, in which it is of a thin watery character, somewhat intermediate between serum and pus.

5. *E. impetigo*, in which it is distinctly purulent, often enclosed in small flat pustules, and drying up into scales of a yellowish-brown colour.

6. *E. porrigo*, in which the pustules are much larger and rounder, and in which they dry up into thick uneven crusts of a dark brown or green colour. This form is contagious, and has been described by Dr. Tilbury Fox under the name of impetigo contagiosa; Mr. Hutchinson calls it simple porrigo. It is the porrigo favosa of Willan.

III. There remain certain forms of eczema which may be styled abortive, since the inflammation in them does not advance to the pouring out of the characteristic serous fluid. They are—

7. *E. erythematodes*, in which the eruption is limited to an erythematous blush. This occurs chiefly in those parts of the skin which rub against one another. An old name for it, still frequently used, is intertrigo.

8. *E. squamosum*, in which the most marked effect of the disease is a redness of the surface, with the formation of whitish scales in greater or less quantity. This includes several of Willan and Bateman's species of psoriasis and of pityriasis; they are well known to be modifications of eczema.

9. *E. lichen vel papulosum*, in which the inflammation, instead of forming vesicles, does not go beyond the development of solid elevations or papules. Under this are comprised many cases which were formerly regarded as examples of a true lichen, and essentially distinct from eczema.

It remains to be mentioned that eczema appears to be the dermatological representative of that large group of affections of the mucous membranes which are styled catarrhal. Histologically it is attended with an effusion of serum into the tissue of the cutis as well as on to its surface, and even, in many cases, into the subcutaneous tissue, so that the affected part pits on pressure. There is also an accumulation of leucocytes in the papillary layer of the cutis, especially along the vessels; and, according to Biesiadecki, spindle-shaped wandering cells penetrate into the rete mucosum in large numbers, and even reach to the horny layer of the epidermis. The papillæ become greatly enlarged and increased in length.

The *causes* of eczema vary widely in different cases. Sometimes it is due to direct local irritation of the skin. Thus, exposure to the sun's rays may give rise to it (e. solare); and it often results from the action of soap in washerwomen and others (as in the so-called washerwomen's itch), from the contact of sugar (grocers' itch), &c. Probably Hebra and Neumann are right in regarding the affection which follows the application of croton oil to the skin as an eczema, although in some respects it differs from that disease.

But in a large proportion of cases eczema cannot be traced to any

local cause. It then often appears to be due to constitutional conditions, which are sometimes strumous (especially in children), sometimes rather of a gouty nature. For many cases, however, no cause whatever can be detected.

264. ECZEMA VESICULOSUM. Model of the back of the right hand of a woman, on which are scattered numerous minute glistening vesicles. The small size of these vesicles is very characteristic of eczema. On careful inspection of the surface many equally small raised points may be seen, which do not glisten, and apparently contained no fluid. These show that a papular stage may precede the development of the vesicles.

In the former catalogue the affection represented in this model is styled "eczema solare;" such an eruption is, in fact, very commonly caused by exposure to the heat of the sun. There is also said to be a slight general inflammatory redness of the surface of the skin. Perhaps this is less evident now, from the model having somewhat faded.

265. ECZEMA VESICULOSUM. Model of the back of the left hand and forearm of a patient affected with an eczema in its earliest stage. The dorsal surfaces of the fingers in particular are crowded with vesicles which are running together, and give the surface an appearance very similar to that of a part affected with confluent smallpox, but (so to speak) on a smaller pattern. On the back of the hand the vesicles are less numerous, and they are still more scanty on the forearm.

In the former catalogue it is stated that the patient "had taken arsenic," and the affection is designated "eczema arsenicale." I am not, however, aware that there is any evidence that the internal use of that remedy is capable of causing an eczema such as is represented in the model. Unfortunately it is not stated whether or not the arsenic was administered for the cure of a pre-existing eruption. Is it possible that the affection was simply a relapse?

266. ECZEMA VESICULOSUM et IMPETIGINODES. Model of the back of the left hand of a woman, presenting an eruption of

vesicles, which are in some places becoming opaque and assuming the character of pustules. The vesicular character is especially marked about the radial side of the wrist, where, indeed, the eruption seems in part not to have gone beyond the papular stage. The pustules are most fully developed about the roots of the fingers, where some of them are running together and acquiring irregular forms thereby. Each spot is surrounded by a minute red zone, and there also appears to be a slight diffused swelling and redness of the whole hand.

267. ECZEMA VESICULOSUM, SQUAMOSUM, et MADIDANS. Model of the right side of the abdomen, thigh, and genitals of a child affected with eczema. Over the thigh are scattered numerous vesicles, and some papules which have not yet become vesicular. These are beautiful examples of the characteristic early vesicles of eczema. The surface of the abdomen is slightly reddened and covered with thin whitish-yellow scales and crusts. There are also some black points corresponding to papules or vesicles, which have had their summits injured by friction or scratching, and which are consequently covered with minute crusts of dried blood. In the fold of the groin and along the transverse folds of the abdomen there are moist-looking red lines, where the rete mucosum was exposed.

268. ECZEMA RUBRUM vel MADIDANS. Model of the chest and upper part of the abdomen of a young woman affected with eczema. A large part of the surface is reddened and covered with thin crusts, which in places are becoming detached in large masses, exposing a moist, raw-looking surface. On the chest some of the patches are apparently getting well, having lost their crusts, and being, nevertheless, dry. The diseased are separated from the healthy parts of the surface by well-defined limits in this case, but patches originally distinct have run together so as to form a complicated pattern.

ECZEMA RUBRUM vel MADIDANS. Two models (269 and 270) from a patient affected with this disease.

269. Model of the right side of the chest and back, and of the right shoulder and arm. The skin is universally covered with crusts. These, in some places, are thin and white and crumbling, having been formed of dried serous discharge mixed with flakes of exfoliating cuticle. At other parts the crusts are thicker and of a yellowish-brown colour, and they tend to become detached in large broad flakes, the edges of which curl up; these crusts are the products of a fluid which was of a purulent rather than of a serous character. Above the clavicle there is an extensive raw-looking surface, where the crusts have fallen off or been removed, and where the rete mucosum is exposed. The skin over the posterior fold of the axilla falls into broad folds, which show that the derma has been considerably thickened by inflammatory products.

270. Model of the palm of the left hand and part of the forearm. The thick cuticle of the palm is peeling off in large flakes, exposing a roughened moist surface of newly formed epidermis or of the rete mucosum. At the wrist the crusts become thinner, and a little higher up the diseased part becomes limited by a defined border. The forearm, so far as can be seen, is free from the affection, except that towards the outer side the cuticle is slightly roughened (eczema squamosum). The nail of the little finger is rough, and evidently affected by the complaint; the other nails are healthy.

The patient was an old man who was admitted into Barnabas Ward many years ago. He had for some time been in a state of extreme destitution, and at the time of his admission he was nearly starved, and could scarcely collect himself sufficiently to give an account of his case. He said he had laboured under the present attack of eczema fro some months; he could assign no cause for it. He had not taken mercury. (In reference to this I may remark that I am not aware that the medicinal use of mercury is capable of exciting an eczematous eruption, as was formerly supposed.) The irritation of the skin produced by the eruption was much increased by the myriads of pediculi which were everywhere concealed beneath the crusts.

He had severe diarrhœa, and sank within a week after he came into the hospital. On post-mortem examination the small intestine was found to be excessively irritated and in places ulcerated.

See Mr. Key's Inspection Book, p. 70.

271. Eczema Rubrum vel Madidans. Model of the head, chest, and shoulders of a young man, universally affected with a severe form of eczema. The whole of the surface represented in the model is covered with crusts; some of them are thin and white, appearing to have been formed from a serous fluid; others are yellow or yellowish-brown, and of considerable thickness, with upturned edges, ready to be cast off.

No history of this case has been preserved. The body and limbs of the patient were evidently much emaciated.

See Drawing 153.

272. Eczema Vesiculosum et Impetiginodes. Model of the right side of the face and neck of a boy, affected with a severe form of eczema. The face is greatly swollen, the eyelids having been apparently closed from this cause. The lips, cheeks, and pinna of the ear are much enlarged. Various parts of the surface, especially the ear and the side of the face, present scattered vesicles, which look as if they contained a clear serum. On other parts, especially round the mouth and under the chin, there are thick yellow crusts, from beneath which a semitransparent brownish liquid is oozing.

273. Eczema Impetiginodes. Model of the scalp of a child, presenting diseased patches covered with large, flat, yellowish crusts. The head has recently been shaved, and the affected parts contrast strongly with those which are healthy, in presenting no black points indicative of the presence of hairs protruding from their follicles. But I think that there is every reason to suppose that the hair would grow again, even over the diseased parts, after subsidence of the disease, although it is pointedly mentioned in the previous catalogue that the hair was destroyed.

274. Eczema Impetiginodes. Model of the face of a boy, having on each cheek a well-defined patch of this disease, covered with an irregular crust of yellowish-brown colour. This has in some places a white appearance, doubtless from

some powder having been applied to the surface therapeutically. Scattered over other parts of the face are numerous small flat pimples, most of which appear to have had crusts of dried blood on their summits, having been injured by scratching or rubbing. They are described in the older catalogue as pustules, but this is not very evident. There is no doubt, however, that, as is there stated, they represent the earliest stage of the affection.

275. ECZEMA IMPETIGINODES. Model of the right upper limb of a woman, a large part of which is covered with this disease. The whole of the extensor surface of the forearm is reddened and oozing, and presents large flat yellow crusts, formed partly of exfoliating cuticle, partly of dried inflammatory exudation. The edges of these crusts are separated by sinuous spaces in which the moist raw-looking surface of the deeper layer of the epidermis can be seen. The affected part has a sharply defined border, beyond which the skin appears to have been quite healthy. On the back of the hand is a smaller patch, probably of more recent development, as the remains of the vesicles or vesico-pustules which formed it can be plainly seen; and between the two patches a single papule is visible, which, no doubt, represents the very earliest stage of the disease.

276. ECZEMA IMPETIGINODES. Model of part of a right leg, presenting a defined patch of this disease, which from its shape appears to have arisen by the coalescence of two or three smaller patches, that had been at one time distinct. The affected surface is covered with a rather thick crust of a brown or yellowish-brown colour. At one part the crust has become detached, and the skin beneath is seen to be moist and raw-looking, being covered only by the deeper layer of the epidermis. It also presents numerous minute red puncta, each of which would correspond with an imperfectly developed eczematous vesicle.

277. ECZEMA IMPETIGO. Model of the back of the right hand of a woman, presenting an eruption in various stages.

There are two or three glistening vesicles, one not larger than a millet seed, but the others of a larger size. Then there are several scattered pustules, two of which are discharging a thin pus. There are also one or two patches covered with yellow crusts of considerable thickness. The principal patch is seated near the fork between the fore and middle fingers. At one point the crust has become detached, and here fresh flat vesico-pustules appear to be forming beneath the new cuticle. There is some redness round all the pustules.

278. ECZEMA IMPETIGO. Model of the right upper limb of a child affected with this disease in all its stages. There are, in the first place, numerous small vesicles, especially on the back of the hand. Associated with them are a few pustules; these are of larger size than the vesicles, and full and rounded in form. Besides all these there are several large patches of crust, of a yellowish-brown colour, scattered over the wrist, forearm, and arm.

Clara H—, æt. 6, was a patient of Dr. Gull's, in Lydia Ward, in June, 1856. She left the hospital, cured, in a fortnight.

279. ECZEMA IMPETIGO. Model of the right knee and leg of a patient, presenting various stages of eczema impetigo. The earliest phases of it are seen to the outer side of the knee, where there are a number of small scattered pustules, and of papules that have not yet assumed a pustular character. The pustules may be taken as fairly representative of the so-called "psydracious pustules of impetigo," but they are, perhaps, rather larger and more conical than usual. Behind the knee—a very favourite seat for all forms of eczema—is a large patch of the disease, the surface moist with discharge, and presenting yellow crusts of some thickness. Over the crest of the tibia is another round patch of considerable size, covered with a crust which had a darker colour, from the admixture of blood with the discharge of which it was formed. Below this there are two smaller round masses of crust, each about the size of a shilling. These look rather as if they had arisen by spreading concentrically from a

single primary pustule, than as if they had been formed by the coalescence of vesicles or pustules originally distinct. If so, they would deserve the name of ecthyma rather than that of impetigo.

280. Eczema Impetigo, supervening upon chronic œdema and thickening of the subcutaneous tissues. This model represents the left leg and foot of an adult patient, presenting an affection which is exceedingly common in this situation, but which ought not to be designated simply as a cutaneous disease, since the state of the skin is entirely secondary and dependent upon that of the subjacent structures. The leg is, in fact, enormously enlarged; the connective tissue beneath the skin was, no doubt, very greatly thickened and indurated by a process of chronic inflammation. The surface of the integument was thereby rendered uneven. This is more or less the case throughout all the parts represented in the model; and the skin everywhere shows indications of having participated in the inflammatory process, and is more or less reddened, with its cuticle peeling off. At certain parts the chronic dermatitis has reached a much more severe degree. Round the ankle, in particular, there is a broad zone in which the integument is covered by a thick black crust, which is divided by deep grooves into a number of apparently isolated elevations of a more or less quadrilateral shape. The affection thus resembles to some extent that known as ichthyosis hystrix, and the peculiar character of the crusts in this case is really due to the same cause as in that disease, namely, the mutual pressure of overgrown and thickened cutaneous structures. The difference is that in this case the thickening is due, not to a congenital hypertrophy of the papillæ and other parts, but simply to a chronic dermatitis, leading to the accumulation of an enormously thick layer, made up of inflammatory products and of cast-off cuticle.

281. Eczema Impetigo? Model of the right foot of a child affected with a disease presenting some remarkable features, but which must be assumed to have been of an impetiginous

nature, having in the former catalogue been designated "impetigo scabida." On the toes, as well as over the ends of the metatarsal bones, there are rounded or oval patches, some of which have become confluent. They are all of them covered with greenish-brown crusts, which are broken up into isolated portions by grooves running across them, and so far resemble the crusts in the previous model (280). Each patch, however, has a well-defined border, which appears excavated, as though the skin had been destroyed by ulceration. The little separate masses of crust thus look as though they consisted of granulations growing from the floor of an ulcer, and covered with dried exudation. The toes are also packed one over the other in a very curious manner, and (according to the former catalogue) were "in a state of inflammatory œdema, probably connected with some local irritating cause." In fact, it seems not impossible that the disease may originally have been seated, not in the skin itself, but in the bones or on the tissues subjacent to the skin. If so, the model illustrates a point which is of great practical importance, for Mr. Durham has mentioned to me a case which occurred in his practice, and in which a lady's finger had been for a long time supposed to be affected with eczema, but the real disease was necrosis of part of one of the phalanges. The skin affection was at once cured by the removal of a piece of dead bone.

282. ECZEMA PORRIGO. Model of the face of a girl, affording an excellent illustration of this disease. It is seen in all stages, from recent pustules of large size to the peculiar thick yellow crusts, many of them still moist with viscid honey-like pus. The crusts are of no great size, but they are of very irregular forms, each having been produced by the confluence of several pustules.

The patient was a girl, 18 years old.

283. ECZEMA RIMOSUM. Model of the left wrist and back of the hand and fingers, showing the skin reddened, thickened, desquamating here and there, and marked with numerous transverse fissures, and about the root of the thumb with deep

irregular chasms. These enable it to be seen how greatly the derma is increased in thickness by infiltration with inflammatory products.

The patient was a washerwoman, and accustomed to use soda in her occupation. The complaint had commenced about eighteen months before.

The affection represented in this model is what was formerly called washerwomen's itch, a disease which is really always an eczema.

See Mr. Key's Inspection Book, p. 63.

284. ECZEMA. Model of the back of the left hand of a patient affected with this disease. A large part of the surface is seen to be rough, and covered with thin scaly crusts, and here and there there is serous discharge. There is but little redness, and it might be supposed that the disease was of no great severity. However, it may be noticed that the folds of the integument about the roots of the fingers look thick and massive, as though the derma were infiltrated with inflammatory products. Probably this was the case, and the affection was really of long standing.

285. ECZEMA RIMOSUM (OF LIPS). Model of the face of a woman, showing a reddened condition of the skin round the lips, with numerous fissures. There is some redness also and scaliness about the chin.

The older catalogue remarks that "the remaining part of the skin of the face was not in a healthy condition," but without stating what indications of disease it presented. Most probably it was affected with one of the slighter forms of eczema. A few scattered papules may in fact be observed upon the forehead.

This model was formerly called "psoriasis labialis." The remarks made in a note to model 250, in reference to psoriasis palmaris, apply equally to the cases which were formerly designated psoriasis labialis, and in which I believe the affection is almost always really an eczema.

286. ECZEMA OF LIPS, with inflammation of the buccal mucous membrane. Model of the face of a young woman, showing the lips covered with thick black crusts. The mucous mem-

brane of the mouth is reddened and swollen, and the edges of the gums are ulcerating.

M. D— was a patient in Clinical Ward in December, 1862. She was 25 years old, a highly hysterical girl, labouring under much mental depression. She had suffered from the complaint for three or four years, and attributed its commencement to mercurialism. When the black laminated scabs were removed from her lips fresh ones soon formed again. There was apparently no breach of surface beneath them. The mucous membrane of the mouth was so tender that she could only take fluids. Arsenic was prescribed for her, and so long as the formation of the crusts was prevented by ointments she was better, but the relief was only temporary. She left the hospital in March, 1863. I think she was again admitted in the autumn of the same year.

See note to case 285. This case, too, was formerly called psoriasis labialis.

287. ECZEMA (modified by treatment). Model of the flexor surface of the left arm and forearm of a man, over which are scattered numerous reddish-brown, slightly raised spots and patches. These are evidently of an eczematous nature, but they do not now present any crusts, there being only a slight scaliness of the surface at certain parts. The disease, in fact, was subsiding at the time when the model was taken; and its appearance is exactly that which is usual when an eczema is getting well under the application of some simple ointment.

288. ECZEMA SQUAMOSUM. Model of the abdomen and parts of the thighs of a man, on which are several large well-defined, slightly scaly patches, of a brownish-red colour. One of them covers the pubic region, and extends outwards upon either groin. Another large one affects the skin round the umbilicus for a distance of several inches on each side. Above this, again, there are three smaller patches; these are of a paler colour, and less raised above the surface than the larger ones, and they are also smoother, and are not desquamating.

In the former catalogue the eruption portrayed in this model was designated psoriasis diffusa. But there can be no doubt that it was really a dry form of eczema. This is proved, not merely

by the characters of the affection, but also by its seat. Eczema is, in fact, very apt to attack the umbilical and pubic regions. As long ago as the time when Sir W. Gull gave the demonstrations on cutaneous diseases at Guy's Hospital, he, as I well remember, used to lay special stress upon the fact that the eruption which had been designated psoriasis diffusa was really a form of eczema.

289. Eczema Squamosum (of Palm). Model representing the palmar surface of the right hand and fingers, over the greater part of which the cuticle has peeled off, the tips of the thumb and fingers being the only places where healthy skin is visible. The thin new epidermis over the rest of the hand still exhibits a tendency to desquamate, and presents numerous small black points. These (as is remarked in the former catalogue) resemble somewhat the comedones (acne punctata) which are so common on the face and on the back. But it is evident that this is not a real analogy, and doubtless they are simply holes in the cuticle (probably where minute vesicles formerly existed) which have got filled with black matter from without. At the margin of the affected part near the wrist the remains of eczematous vesicles may, in fact, be plainly seen.

See note to model 250.

290. Eczematous Affection of Finger Nails. Model of the hand of a woman, showing disease of almost all the nails, the result of an eczematous affection of the ends of the fingers, involving the roots of the nails.

The nails are thick, rough, and in parts of a brown colour. They present transverse ridges and grooves, evidently indicative of irregularities in their growth from the root at a former period. In some places their surface is fibrous and longitudinally striated, and towards the root some of them look as if no proper superficial nail substance were being formed, and as if the nail would be cast off and replaced by an irregular fibrous mass formed from the bed. The skin round the roots of the nails is rough, and was evidently affected with chronic eczema.

Eczema Impetigo of Extremities of Fingers. Three models (291 to 293) from a patient in whom the ends of the

fingers and toes presented an impetiginous eruption of great severity.

291. In this model the right hand is represented. The skin of all the fingers is reddened and covered with masses of yellow crust, especially near the nails. The inflammation involved both the root and the bed of the nails, and the nails have in consequence become detached, their posterior extremities being quite free. In the case of the forefinger the pre-existing nail has been cast off, and the only indication of a tendency to the formation of a new nail is the presence of a mass of rough, longitudinally striated substance near the root, the greater part of the bed of the nail being covered by the yellow crusts.

There seems to be a remarkable constriction of the middle and fore fingers at about the middle of their second phalanges. This may, perhaps, be rather apparent than real, there being great swelling of the parts above and below; but it seems curious that no allusion to it is made in the report of the case.

292. Model of the right foot of the same patient, showing that the ends of the toes were affected in exactly the same way as the fingers, but less severely. The nail of the great toe is the only one which had become detached at the time when the model was made.

293. Model of the right hand (the same as represented in 291), six months later. All the fingers have now good nails, which had, in fact, existed long enough to have required cutting two months before this model was made. The shape of the fingers is natural.

The patient, Mrs. B—, æt. 53, was under the care of Dr. Gull and Dr. Adam Martin, of Rochester. The disease began in the left thumb nail, and in a week or two attacked all the other nails of both fingers and toes. A distressing burning pain attended it. The hands and the loins presented one or two spots of a similar eruption. She was ordered the Liquor Arsenici Chloridi in mx doses, twice daily, and a nutritious diet, and the fingers were washed with a weak solution of borax, and afterwards brushed over with Lotio Hydrargyri Nigra and glycerine.

The recovery of the patient was rapid.

See notes of the case by Dr. Gull in the 'Guy's Hospital Reports,' series iii, vol. v, p. 162.

INFLAMMATIONS OF THE SKIN SET UP BY THE DIRECT CONTACT OF IRRITATING SUBSTANCES. —FACTITIOUS ERUPTIONS.

Under this head I may collect together a number of affections, which, however, differ widely in the appearances which they present, according to the nature of the irritant by which they are caused. It appears useless to attempt to give any general description of them. Most of the following models speak for themselves, but where it seems necessary short remarks have been appended to the descriptions of them.

294. VESICULAR ERUPTION caused by the application of Croton Oil. Model of the right side of the chest of a young man, showing this eruption. A defined surface is reddened and thickly covered with vesicles. Below the nipple there are some ecchymosed lines, evidently the result of laceration of the texture of the skin during friction with the ointment.

The model was taken about sixteen hours after the oil had been rubbed in.

295. VESICULAR ERUPTION caused by the application of Croton Oil. This model represents the right side of the chest of a patient, which is reddened and covered with vesicles. Many of the vesicles are larger than in model 294. Some of them are distinctly umbilicated; and others are of very irregular form, having apparently resulted from the confluence of two or more originally distinct vesicles. Many of them are still very imperfectly developed.

From a young man, a private patient of Dr. Wilks in July, 1864; the oil had been used (it is not stated at what intervals of time) three times when the model was taken.

296. TUBERCULAR ERUPTION produced by the local application of Cantharides. Model of the right side of the chest of a woman, showing a very remarkable affection. The whole of the skin over the breast is discoloured, being generally reddened, but in parts having a greenish hue, especially towards

the periphery. It presents a number of large tubercles, which are raised above the surface, some of them bigger than peas. The nipple can just be detected in the centre of the diseased surface. Below the breast is another broad patch of irregularly quadrilateral form. This shows signs of recent vesication, the horny layer of the cuticle being at one part completely detached, so as to expose the raw surface of the rete mucosum. At other parts tubercular elevations are beginning to appear, resembling those over the breast.

Catherine L—, æt. 20, was first admitted, under Mr. Birkett's care, on July 4th, 1855. She was a delicate, rather hysterical-looking girl, and had suffered from irregularity of the catamenia and from leucorrhœa. She said that she had had more or less pain in the right breast for fifteen months, ever since she had received a blow on the part. She declared that she had also noticed a small "lump" to the inner side of the nipple. No lump, however, could be discovered; but the breast was "covered with red patches," evidently the result of some irritating application. The exact nature of the irritant that had been applied could not be discovered. The affection soon diminished in severity, and on July 17th she was discharged "convalescent." On September 17th of the following year (1856) she was readmitted. She said that she had been to Boulogne, where her breast again began to swell and became very hard. Various ointments and lotions were prescribed for it, and at last caustic was applied daily, but without benefit. The report taken at the time goes on to say that on admission there were warty growths, of peculiar and uncommon character, extending over the whole surface of the right breast, attended with a considerable amount of discharge. Her health did not seem to be at all interfered with. The breast was not tender, and there was very little pain.

One day, soon after her admission, Mr. Birkett visited the ward at an unusual hour, and discovered a piece of lint strewn with powdered cantharides which she had placed upon the surface of the breast. The imposture being thus detected, the affection was readily cured. The lint, covered with cantharides, which the girl used is still in the museum.

See the 'Brit. Med. Jour.,' 1870, i, p. 152.

VESICULAR ERUPTION, DUE TO THE ACTION OF PIGMENTS USED IN DYEING. Two models (297 and 298) from the same patient.

297. Model of the back of the right hand, the skin of which is much reddened and presents numerous large, flat, scattered

vesicles, some of which are almost large enough to be called bullæ. There are some of them also on the backs of the fingers, and even on the forearm. One or two of them are drying up into crusts. On the back of the wrist there is a diffused eczematous condition, with a tendency to the formation of transverse rhagades or fissures. The nails are stained of a yellow colour.

The man, an out-patient under Dr. Wilks in March, 1864, was a dyer, and used patent colours. He left off work for a time, and the affection got well.

298. Model of the back of the hand of the same patient, showing an earlier stage of the affection.

When this model was taken, he had resumed work, and the affection was just beginning to reappear.

299. VESICULAR ERUPTION, CAUSED BY THE LOCAL ACTION OF NITRIC ACID. Model of the back of the left hand of a girl, which is swollen and reddened, and covered with an eruption of large, flattened, umbilicated vesicles or bullæ. Some of them are just making their appearance. The contents of others have already dried up into thick crusts of a yellowish-green colour. On the back of the wrist there is a tendency to the formation of fissures, evidently due to stretching of the inflamed skin in the movements of the part. The cuticle is desquamating slightly in the same neighbourhood.

The girl came under the care of Dr. Habershon in the year 1864. The eruption was said to have been caused by nitric acid, which had been used by a druggist for the purpose of destroying warts.

INFLAMMATION OF THE SKIN, SET UP BY THE LOCAL ACTION OF OXALIC ACID. Two models (300 and 301) of the right hand of a young man, one showing the dorsal, the other the palmar surface.

300. This model represents the back of the patient's hand. There is a diffused redness of the skin, which upon some parts of the fingers passes into a purple colour. The nails are of a bluish-black tint, especially towards their roots. The

palmar surface of the end of the thumb is visible, and is of a yellow colour, evidently the result of an accumulation of pus beneath the epidermis.

301. This model represents the palm of the same hand. The skin looks tense and shining, and the tips of all the fingers are of a whitish-yellow colour, from pus collected beneath the cuticle. On one or two of the fingers this condition extends a little beyond the furrow corresponding with the last interphalangeal joint.

Edward S—, æt. 23, a potboy, was admitted into Naaman Ward under Mr. Cock on March 13th, 1861. He was very ill, having considerable febrile disturbance and complaining of agonizing pain in his hands. These were swollen, of a dark purple colour, and in a state of inflammation apparently approaching to gangrene. He had no rest at night on account of the constant throbbing and tingling in them. The models were taken a few days later, when the nails were of a bluish colour; the ends of the fingers formed bladders filled with pus, and the fingers and hands were of a bluish-red colour.

The cause of the affection was thought to be the use of oxalic acid. He had been in the habit of cleaning metals with this substance during about two hours a day throughout the previous winter. On the last occasion he had used an extra quantity of the acid, and it was after this that the inflammation of his hands commenced. He left the hospital soon after the models were made, so that it is not known how long the inflammation took to subside.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. vii, p. 311.

INFLAMMATION OF THE SKIN, due to the local action of some irritant, perhaps oxalic acid. Two models (302 and 303) from the same patient.

302. Model of the back of the right hand, the skin of which is acutely inflamed. Over the dorsum of the hand itself the skin is reddened and covered with small vesicles, many of which are small and flat, and appear to be running together. On the backs of the fingers the horny layer of the epidermis is peeling off in large flakes, exposing a raw bleeding surface. Above the wrist the affection abruptly diminishes, being represented only by some scattered small pustules and crusts, with intervals of healthy skin. The wrists are much discoloured.

303. Model of the palm of the left hand of the same patient.

The horny cuticle of the palm is of an orange-brown colour. About the wrist, and along the outer side of the thumb, there are several scattered roundish vesicles and pustules, some of which are already forming crusts. The skin of these parts also is swollen and much reddened. The cuticle of the back of the thumb appears to be peeling off.

Robert H—, æt. 19, was admitted into Clinical Ward under Dr. Habershon's care on November 18th, 1872. He had for eighteen months been employed in leather dressing. In the course of that time he had used various substances in his work, but since the 14th November he had been employing a particular substance for the first time.

For three days he felt nothing unusual, but on Sunday, the 17th, when he rose in the morning, his hands began to sting and itch; and a rough rash appeared over them, reaching to the wrists. The hands also became inflamed and swollen.

It appeared probable that what he had been using was a mixture of oxalic acid with some red colouring matter.

The foreman told him that this substance had been often observed to affect other workmen in the same way when they began to use it.

Besides the affection of the hands, represented in the models, the inner part of each thigh and the flexor surface of each elbow showed an erythematous eruption, dotted with fine vesicles and a few pustules. The patient thought that he had set up the affection of these parts by rubbing them with his inflamed hands.

The axillary glands were enlarged.

His pulse was 80. His tongue was rather furred. He had no other constitutional symptoms.

He was ordered gr. ij of quinine and Mist. effervescens t. d. No local treatment was at first prescribed for the hands. On the 22nd it is noted that the pustules had run together into bullæ, and on the 26th that these had burst, leaving slightly ulcerated surfaces. There was slight tenderness along the lymphatics of the arm. Glyc. Amyli was then ordered to be applied to the affected parts.

By Dec. 4th the sores had all healed and the hands were desquamating. He left the hospital on Dec. 12th.

See Mr. Golding Bird's report in vol. xxviii of the 'Medical Reports,' Case 224.

304. Eruption (Eczema Squamosum) caused by the fumes of arsenic. Model of the face of a girl, presenting diffused red patches, from which the cuticle is falling off in thin small

scales. These are scattered over the forehead and cheeks, and, indeed, over all parts of the face. It may be noted that the margins of the eyelids are reddened.

This affection was attributed, no doubt correctly, to the irritant action of the fumes of arsenic.

The patient's occupation was to colour boxes with a paint composed of emerald green mixed with hot size. She stated that whenever she desisted from her work for a time the eruption got better, and that it was now worse in consequence of her having gone on with her work for a longer period than usual. "No vesicles can be seen," the report goes on to say, "although they have probably once been present. The face is nearly covered with scales of a brownish colour, and this condition extends over the whole of the exposed surface of the face, from the roots of the hair to the lower jaw."

After the model was taken she left her occupation, took some medicine, and rapidly got better.

It was remarked at the time that the general aspect of the patient and the brownish hue of the surface were such as might have resulted from syphilis, but the careful investigations which were made tended to negative this interpretation of the case.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. viii, p. 265.

305. Ulceration of the Skin caused by the local application of Arsenic. Model of the back of the right hand, showing an affection which was caused by the use of arsenic. The whole surface of the back of the hand is of a reddish-brown colour, with its cuticle peeling off in some places, while other parts present slight scabs, formed apparently by the desiccation of vesicles. Over the metacarpo-phalangeal joints of the thumb and of the first and little fingers, and over the first phalangeal joints of the first and middle fingers, there are deep punched-out ulcers, with ash-coloured bases and thickened white edges.

John P—, æt. 24, came as an out-patient, under the care of Dr. Fagge, in November, 1871. For eight months he had worked in the manufacture of emerald green, employing a solution of white arsenic. He did not know how strong this solution was. He was perfectly well until three weeks before he came to the hospital, when he accidentally knocked the skin off his hands in several places. He supposes that the solution came into contact with these places, for they have gone on enlarging. He does not remember that they have bled, nor that he has

experienced smarting in them. He has had no pain in the abdomen, but has noticed that his eyes, which always were weak, have been more tender than before.

Besides the sores on the right hand displayed in the model there were two on the left hand. One of these was on the back of the thumb; it measured half an inch by a quarter of an inch; at its bottom a tendon could be seen working. They were painful, whereas those on the right hand were not so.

He said that another man had been affected in a similar manner, but was easily cured.

At the end of a fortnight, under simple treatment, the sores had nearly healed.

306. DISEASE OF THE NAILS caused by the local action of Arsenic. Model of the left hand of a young man, showing an affection of the nails which was exceedingly common among the students some years ago, when the use of arsenic was first introduced to preserve subjects for the dissecting-room. It consists mainly in a change of colour in the body of the nail, which is of a bright yellow tint, passing into a greenish purple, resembling that of a bruise. Both the lunula and the free margin of the nail are unaffected.

Mr. F. M. C— was dissecting a subject for the anatomical lectures of Mr. Cooper Forster, when his nails and the tips of his fingers became inflamed. They were also exceedingly painful, particularly when he first rose in the morning. The subject was a very "moist" one, and had been injected with about a quart of water saturated with arsenious acid, but as this substance is comparatively insoluble the actual amount of arsenic could not have been large. After a few days pus formed beneath all the nails except those of the thumbs, which wholly escaped. The model was made when the affection had existed for about a week. He afterwards wore an india-rubber shield upon each finger, which protected the nails from further irritation. In a few days the pus dried up and the pain ceased, and the nails acquired a peculiar dirty look, being almost entirely separated from their beds.

See Mr. Cooper Forster's account of the affection in the 'Guy's Hospital Reports,' series iii, vol. v, p. 160. Dr. A. S. Taylor analysed portions of the nails three months afterwards and found very distinct traces of arsenic.

ACUTE AND CHRONIC LOCAL INFLAMMATIONS OF THE SKIN caused by the contact of fluids from the dead body (VERRUCA NECROGENICA). Two models (307 and 308) of the left

hand of a student, showing different stages of the affection which is sometimes produced by the contact of irritant fluids with the skin in the performance of post-mortem examinations.

307. This model presents over the metacarpo-phalangeal joint of the forefinger a recent flat pustule, surrounded by a broad red zone. Over the metacarpo-phalangeal joint of the little finger is a raised patch of the size of a threepenny piece, of a brownish-purple colour, from which the cuticle is desquamating slightly.

308. In this model, which was taken a few days later, the pustule over the knuckle of the forefinger is seen to be in process of drying up; the reddened zone of skin round it is assuming a brownish colour, and the cuticle over it is beginning to desquamate. A chronic process is, in fact, commencing, which would probably have led to the development of a patch resembling that on the metacarpo-phalangeal joint of the little finger.

The pustule over the knuckle of the forefinger appeared a few hours after the student had made a post-mortem examination in a case of pyæmia in May, 1865. It was attended with inflammation of an absorbent vessel, extending up the arm. The acute symptoms lasted three or four days.

The affection of the knuckle of the little finger had begun six months before, in December, 1864, after he had made an autopsy in another case, which also was one of pyæmia.

CHRONIC LOCAL INFLAMMATION OF THE SKIN caused by the contact of irritant fluids from the dead body (VERRUCA NECROGENICA). Two models (309 and 310) taken from a man who was at the time an assistant in the post-mortem room of the hospital.

309. This model represents the back of the right hand. Over the metacarpo-phalangeal joints of the forefinger and the middle finger there are indurated and raised patches of a bluish-red colour, with some desquamation of the cuticle; that on the knuckle of the middle finger is as big as a shilling.

The first phalangeal joint of the forefinger is also swollen

and reddened; but this was due to some other cause, and had nothing to do with the cutaneous affection.

310. This model shows the back of the left hand of the same patient. There are patches over the knuckles of the fore and middle fingers, like those on the right hand, but smaller.

The man from whom these models were taken had given up his work in the post-mortem room about a year previously, but the affection remained unaltered. It had existed more than two years. In addition to the description of the affection which has been given above, it may be noted that the most prominent parts of the patches were very dry and brittle, so that pieces of the cuticle were constantly peeling off.

311. CHRONIC LOCAL INFLAMMATION OF THE SKIN caused by the contact of fluids from the dead body (VERRUCA NECROGENICA). Model of the left hand of a student, presenting a reddish-brown patch over the first phalangeal joint of the middle finger. This is very similar in appearance to the patches represented in models 309, 310, but it shades off more gradually at its margins into the healthy skin round it.

The gentleman from whom this model was taken had injured his finger in the post-mortem room three or four years before, and the affection persisted in spite of the application of caustics and the removal of portions of the cuticle, by which means he had attempted to cure it.

This affection was first described by Dr. Wilks in the eighth volume of the third series of the 'Guy's Hospital Reports,' at p. 263. Dr. Wilks gave to it the name of verruca necrogenica; but it appears to me doubtful whether this designation is fairly applicable to it, for its anatomical nature must be different from that of a warty growth. It seems rather to be a chronic inflammatory thickening of the different structures which make up the integument. Dr. Wilks was disposed to think that it does not, as a rule, commence by the production of a definite pustule, as appeared to have been the case in the student from whom models 307, 308 were taken. But I have repeatedly seen a condition of chronic inflammation and thickening of the skin occur upon the site of former pustules, caused by slight scratches of the knuckles from the sharp edges of the ribs, &c., in making post-mortem examinations; and I am therefore inclined to suspect that in all cases the affection is originally caused by some definite local cut or scratch (the occurrence of which is forgotten by the person himself), rather than by the mere exposure of the uninjured surface to morbid fluids, however often repeated.

ICHTHYOSIS.

A chronic affection of the skin, consisting mainly in hypertrophy of the epidermis, which is thickened, and presents a variety of appearances. In the lowest grade of the disease the surface merely looks harsh and slightly scaly. In somewhat more marked forms it is covered with little squares of cuticle, which are separated by furrows of greater or less depth. These masses of overgrown epidermis are usually of a greenish or brown or black colour, apparently due to the admixture of dirt with the sebaceous matters which are always contained in considerable quantity in them. In all (except, perhaps, the very lowest) grades of the affection, the papillæ of the cutis are likewise enlarged; and in the highest grade they form long slender-branched processes, each entering the base of one of the thick cuticular aggregations which cover the affected parts.

Ichthyosis is always, I believe, a congenital affection, and it is very often inherited. It may not be noticeable in the very young infant, but it begins to show itself within the first year or two after birth. I have never seen a case in which it was certain that such an affection had been acquired in later life.

Parts of the skin affected with ichthyosis are very liable to become inflamed. In young children they then assume a very characteristic appearance; large flakes of cuticle become detached, and their upturned edges disclose the reddened, sometimes moist and oozing, surface of the rete mucosum beneath. In older children and in adults the tendency to inflammation is shown by the development of eczema, impetigo or pemphigus.

Unlike those squamous diseases of the skin that are of inflammatory origin ichthyosis has no constant tendency to affect the extensor rather than the flexor surfaces of the limbs. It is almost always attended with suppression of the perspiration, and the orifices of the sudoriparous glands may even be obliterated. It is often accompanied by stunting of the bodily frame.

ICHTHYOSIS. Two models (312 and 313) representing the ankles of sisters, each affected with a slight form of ichthyosis.

312. Model of the left ankle of the elder sister. The cuticle over the bend of the ankle is seen to be thickened, and marked by transverse and vertical furrows, which divide its

surface into small squares. The affected part shades gradually off into the healthy surface beyond.

313. Model of the right ankle of the younger sister, affected in a similar way, but somewhat more extensively, the ichthyotic condition spreading round the leg above the ankle.

These models were taken from Elizabeth D—, æt. 14, and Ellen D—, æt. 8, sisters, both affected with ichthyosis, from which their father and mother and another sister were exempt.

The elder girl, Elizabeth, could not remember to have ever been free from the disease, but believed that in her infancy there was a time when it had not commenced. She distinctly recollected that her sister Ellen presented no indication of it for some months after birth.

In both girls the face was dry and rough, and presented ridges, and fine delicate parallel striæ. There was but little mobility of the upper eyelids. The most marked seat of the disease was in front of the ankle-joints in each girl. Here the skin was rough and brown.

The cuticle of the arms was harsh, and when they were rubbed, a fine dust flew from the surface.

The elder girl was the more severely affected of the two. She had no itching, but contact with water produced much smarting. In the winter her skin cracked very much, but did not water. In the summer she was much more comfortable, but even then the appearance of the skin was not natural. The nails of the first, second, and third fingers of the right hand were thickened and hollowed longitudinally, with transverse markings in the hollows.

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 326.

314. ICHTHYOSIS. Model of the right thigh and knee of a man affected with ichthyosis, slight in degree, but almost universal. The cuticle is thick and white, and covered by numerous furrows. Below the knee are streaks of dried blood evidently caused by scratching, and due to the severe pruritus which accompanied the affection.

H. H—, æt. 69, came as an out-patient to Dr. Fagge in September, 1869, and was admitted into Stephen Ward, under Dr. Wilks, on October 22nd.

He stated that about three years ago he first noticed a rash on the front of his forearms; this began in the form of little red spots, which caused a good deal of itching, so that he used to scratch till they bled. Sometimes he could get no rest on account of the irritation. He lived at Foxley, in Norfolk, and had been under the care of several medical men; he had employed sulphur and red precipitate, but without benefit.

His original statement was that his skin had been healthy until three years before, but on closer cross-examination he admitted that he had always had a rough skin, and that the irritation alone had been of recent occurrence.

On examination it was found that the skin all over the body was dry and like parchment. This was simply due to a thickening of the cuticle, for the cutis was thin and quite free from infiltration. The surface was shiny, and apparently free from any tendency to desquamate. When it was scraped no great quantity of cuticle came off. The superficial markings or lines were in most places deeper than natural, and further apart, and this gave a coarse appearance to the skin.

He had never noticed that any scales became detached from his skin or fell into his sheets or clothes. On scraping the legs very little came away.

He used to sweat as much as other labouring men when at work, especially on the legs.

The ichthyosis, although slight in degree, was nearly universal. The parchment-like character was most obvious on the lower limbs, but on the back and shoulders the exaggeration of the furrows was well marked. The cuticle on the palms of the hands was very thick, and on the backs of the hands it was harsh and leathery, so as to interfere with the movements of his fingers. This he ascribed to his work, in the course of which his hands were constantly getting sodden in water. The skin of the face and neck appeared to be healthy.

On admission he was ordered a warm bath; this gave great relief to the itching. He was therefore directed to take a bath every morning. Under its use the papular rash and irritation quickly disappeared. The legs, however, acquired still more markedly the character of ichthyosis; slight, pale red fissures appeared crossing one another, and splitting the superficial cuticle into quadrilateral areæ The palms of the hands also seemed more inclined to crack than before.

See the ' Guy's Hospital Reports,' series iii, vol. xv, p. 330.

315. ICHTHYOSIS. Model of the outer side of the right thigh and knee of a girl affected with this disease. The cuticle is thickened and peeling off in large flakes, separated by furrows, some of which show a disposition to penetrate down to the cutis. It may be observed that the popliteal space is free, and that the affected part is limited by a well-defined border.

The patient was twelve years old, and was under the care of Dr. Addison in Mary Ward. A younger sister, aged seven, was in the hospital at the same time, affected in exactly the same way; in each the skin had been ichthyotic since early infancy. The bends of the elbows, like the popliteal spaces, were free.

ICHTHYOSIS with INFLAMMATION. Two models (316 and 317) taken from a child affected with ichthyosis, the apparent severity of which is greatly increased by attendant inflammation of the cutaneous structures.

316. Model of the head, neck, and face, from which the cuticle is exfoliating in large flat masses. These were probably neither simple scales nor crusts, but made up partly of overgrown cuticle, partly of inflammatory products. These are particularly large on the scalp, where their edges are upturned, and separated from the adjacent masses by a space a quarter of an inch wide, in which the more newly formed cuticle looks almost healthy. On the face, ears, and chest the scales are much smaller; and here the surface between them is red and raw-looking, as if they were becoming detached prematurely. The lids of the left eye are everted, so as to expose the mucous membrane.

317. Model of the left upper limb of the same child. The thickened superficial layer of the cuticle is seen to be exfoliating in much the same way as in the other model, and exposing a reddened mucous layer. But the affection is not universal, the shoulder and the back of the arm being free from it, and their surface being quite healthy, so far as can be seen. Here and there may be seen appearances suggestive of the formation of vesicles, as though the congenital disease were complicated by the supervention of an eczema.

The patient was under the care of Dr. Gull in November, 1859. He was an only child, and was two years old. His mother said that when seven months pregnant she had received a fright from her frying-pan catching fire while she was frying her dinner. She was much alarmed and felt the child jump violently for two hours, but her pregnancy continued to its full term.

When the child was brought to the hospital, it was covered all over with scales, fissures, and cracks. "On the head and the back there were large scales like those from a burn, and these were constantly peeling off. The whole skin was dry, red, and glazed. On the arms were some fissures which yielded a slight discharge, resembling that from an eczema." On the face the appearance was somewhat like that of a skin-bound, or harlequin fœtus. The features were drawn, the mouth puckered, and the lips everted. There were scarcely any

eyebrows or eyelashes. The voice was hoarse. The nails were dry and often came off.

From MS. notes by Dr. Wilks.

318. ICHTHYOSIS with INFLAMMATION (?). This model represents the face and brow of a child, presenting an affection which appears to be partly ichthyosis and partly an impetiginous eczema. On the cheeks the cuticle is seen to be thickened, glazed, shining, and marked with very fine parallel striæ, converging towards the lower eyelid. There is also some redness and tendency to the formation of fissures. On the forehead, scalp, and eyebrows, there are scattered impetiginous crusts, and the cuticle is also exfoliating.

This model was taken from a child who came under Dr. Fagge at the Waterloo Road Infirmary for Children. When the child was first seen the hair was matted together by a liquid like honey, which seemed to consist mainly of sebaceous secretion rather than of pus. The case was thus regarded as illustrating the connection which many writers believe to exist between seborrhœa and ichthyosis.

It may be observed that appearances very similar to those represented in this model are not rarely seen on the cheeks in children recovering from eczema in whom there is no ichthyosis, and that considerable caution is required before one can decide whether the latter affection is present. This is a fact of which I was ignorant at the time when I saw the case from which the model was taken.

319. ICHTHYOSIS ? Model taken from the right leg of an old woman affected with a disease closely resembling ichthyosis, but which, according to the history, had only recently been developed. The superficial layer of the cuticle is seen to be peeling off everywhere in thin flakes. Below the knee these are separating so as to expose the mucous layer throughout in long tracts of some breadth, red and moist-looking, which run together so as to form a kind of network over the surface.

The patient was an old woman, æt. 70, and it is said that the affection first appeared a few months before her death.

This model may be advantageously compared with 315.

320. ICHTHYOSIS with INFLAMMATION; IMPETIGO. Model of the face of a young man affected with ichthyosis. The superficial layer of the cuticle is peeling off in large thin flakes, exposing the reddened deeper layers. The upper lip and chin are covered with impetiginous crusts.

The patient was of weak intellect, and was in Job Ward in the spring of 1864. His face was said to be "always covered with scales resembling ichthyosis. He had also at the time of admission an eczematous eruption on the lips, &c."

From MS. notes by Dr. Wilks.

ICHTHYOSIS; IMPETIGO. Two models (321 and 322) from a case of ichthyosis complicated with an impetiginous eruption.

321. Model of the left forearm and back of the hand, which may be seen to be covered with a very thick greyish-brown cuticle, presenting deep grooves and furrows, which in some places cross one another so as to divide the surface into islets more or less quadrilateral in form. The thickening of the cuticle is especially marked over the wrist and knuckles. It may be observed that the whole limb is stunted, and particularly the fingers. The nails are very small.

322. Model of the chest and abdomen of the same patient. Flakes of cuticle are separating from all parts of the skin, but less round the nipples than elsewhere. Scattered over the surface are certain papule-like elevations which were really pustules, although this is not apparent, as the layer of cuticle covering them was too thick and opaque to allow the colour of the pus to be seen through it. There are also a few crusts, caused by the drying up of similar pustules.

M. A—, æt. 17, was admitted under the care of Dr. Owen Rees, October 9th, 1867, and afterwards under that of Dr. Wilks, February 19th, 1868. She lived at Romford. Her parents and the rest of her family were alive and well. Five months before her birth her mother was said to have been frightened by a monkey. At birth her hands and feet presented a peculiar white, milky appearance, as if they had been soaked for some time in warm water; in fact, like that of the hands of a washerwoman. She was always very ill-developed, in comparison with her brothers and sisters, and when five years old she was unable to walk.

At an early age small flakes of skin began to fall from her hands and

feet. The back of her neck soon became affected in a similar way; gradually the trunk and the rest of the limbs became involved, and lastly the face and the front of the neck. Before she was twelve years of age her whole body was covered. There was free action of the skin. She took much less exercise than other children, for walking a distance produced much irritation and soreness, relieved only by the application of grease. As far back as her memory will carry her the eruption had been attended with great pruritus, especially when she got warm at night, so that she would scratch off great scales from her skin.

When she was thirteen years of age an eruption very similar to that of smallpox came out over her body, and discharged matter. At other times large blebs have formed, and discharged matter.

Latterly the pruritus had increased very much, and prevented her sleeping.

When fifteen years old she saw a woman in a fit, and was immediately seized with one herself. She had had repeated attacks since, which seemed to be of an hysterical character.

Her legs had at times been slightly enlarged, especially after exposure to damp and during the night.

She had never menstruated.

On admission she was a stunted, ill-developed girl, with a peculiar cast of countenance. She was knock-kneed, and the tibiæ were curved. The knuckles of the fingers were very prominent, and the fingers were bent laterally towards the ulnar sides of the hands (in the same way as is seen in so many cases of chronic rheumatism). The ring fingers of both hands were longer than the others. She was moderately intelligent.

The general character of the integument was that the cuticle was thick, dry, and stiff. She was thus, as it were, hide-bound. She was unable to extend the elbow-joints, and could with difficulty straighten the fingers. The face was very little affected. The mouth was slightly puckered, and the skin over the forehead, the upper eyelids, and the cheeks, was slightly branny.

On the limbs the thickening of the cuticle gave rise to a great exaggeration of the natural furrows of the skin. All the more movable parts were covered with parallel lines, often crossed by other parallel lines, obliquely or at right angles. These lines were redder than the intervening spaces, and in the flexures of some of the joints they formed deep cracks or fissures, which oozed and gave the patient great pain. This was especially the case over the wrists and the backs of the hands, and over the heels, so that she had sometimes been unable to wear shoes for days together.

In some places these lines or furrows were separated by rounded ridges, with white edges of loosened scales projecting from them.

Elsewhere the furrows, perhaps a quarter of an inch apart, crossed one another, so as to enclose quadrilateral or shapeless plates, each with a border of loose white epidermic scales. On the inner side of the elbows and ankles there was a still further thickening and division into small quadrangular, easily powdered scales.

The cuticle of the palms and soles was very thick, and without much tendency to desquamation. The nails were much curved inwards, badly formed, rather thin, and ribbed longitudinally. They were surrounded by thick, very irregular walls. The nail of the right thumb was peculiar. It was bounded by no fold, and had no free border. Its substance was as thick as that of the other nails. Its surface was smooth, and well formed, over a space about a quarter of an inch in diameter in its centre; and from this it gradually became less thick and shining on all sides, and passed, with but a slight attempt at forming a free border, into the horny cuticle of the thumb. It shelled off towards the tip, and had seldom been cut.

The trunk was of a remarkably dark colour. It was covered with scales, and also (as well as the thighs) presented numerous flat vesico-pustules. Similar vesico-pustules had (she said) been present as long as she could remember. There were some, but not very numerous, excoriations on the chest, back, and thighs. For a little space round the left nipple the skin was nearly natural in appearance.

The neck was affected with the disease anteriorly as high as the jaw (where it ceased rather abruptly); posteriorly as high as the roots of the hair. The scalp was very scurfy; the hair of the head was scanty, dry, and of a light brown colour. The few hairs which existed on the surface of the body were not straight, but bent into zigzag forms.

The cutis or true skin appeared not to be at all thickened.

The skin acted most freely in the armpits and between the thighs, but also on other parts. A peculiar disagreeable odour was emitted from the surface. [After she had been for a time in the ward it was noticed that her night-dress was wet through in the morning.]

The axillary glands were, and had for some time been, much enlarged, as were also those in the groins.

The mucous membranes were unaffected. The tongue was flabby and pale. The appetite was generally moderate, but sometimes ravenous. The bowels were regular. P. 102. R. 22. The urine contained neither albumen nor sugar; it deposited abundant urates; its sp. gr. was 1022.

She was ordered alkaline baths, each containing ʒiv of carbonate of soda, and a lotion consisting of one part of glycerine to three of water. The application of this appeared to give her relief. She stated, when admitted, that she thought baths had before done her more good than anything else.

There was some bronchial breathing beneath the left clavicle, and she was wasting somewhat, and had night sweats.

She left the hospital April 7th, 1868.

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 320.'

ICHTHYOSIS (HYSTRIX). Two models (323 and 324) taken from a patient affected with this disease, who was known as the "Porcupine Man."

323. Model of the back of the left forearm and hand, which are covered with cuticular masses of a brown or even black colour, forming little squares, more or less separate from one another. Towards the tips of the fingers the skin assumes a more healthy character, and the nails are normal.

324. Model of the right thigh and leg of the same man. Similar square masses may be seen; and over the knee the surface is universally covered with a thick layer of the black substance, which throws the skin into massive folds.

The man was forty-five years old, and made an exhibition of his deformity. He was athletic and suffered no inconvenience from the state of his skin. The disease had been hereditary in his family for several generations, but showed itself only in the males, the females always escaping. This man had only one child, a daughter, who was free.

325. ICHTHYOSIS HYSTRIX. Model of the flexor surface of the right elbow and forearm of a boy, over which are scattered flat quadrilateral black masses of ichthyotic cuticle, almost exactly similar to those shown in the two preceding models. In some places they cohere together, but there are many spaces between them in which the skin has almost a natural appearance.

PITYRIASIS PILARIS.

A chronic affection, characterised especially by the accumulation of horny masses of scales at the mouths of the hair-follicles, so that the surface becomes roughened, looking and feeling much like that of a rasp. In its slighter forms this constitutes the whole of the disease,

but when it is more severe the cuticle between the horny points is rough and scaly, and there is some diffused redness. The affected parts are often sharply limited from those which are healthy. The palms and soles are invariably rough and scaly.

Another name for this affection has been *lichen pilaris*. Some writers have placed it among the diseases of the appendages of the skin. But there can be no question, I think, that its relations are rather with the other diseases which have their principal seat in the epidermis, and which are commonly called squamous diseases. It deserves a generic name of its own, and I formerly proposed to call it rhinoderma (ῥίνη, a file). But this term has such obvious disadvantages that I think it will be advisable to retain the designation of pityriasis pilaris, which was used by Devergie, who gave an excellent account of it.

Pityriasis, I may mention, was one of the genera of Willan and Bateman, but the species which they described have since been shown to be modifications of other cutaneous affections, principally psoriasis and eczema squamosum. It is still, however, sometimes convenient to speak of a "pityriasis capitis," when the scalp presents a slight scaly affection of which one cannot exactly determine the true nature.

326. PITYRIASIS PILARIS. Model of the right thigh of a girl affected on its outer side with this disease, from the trochanter major downwards. The affected part presents a number of brown horny points, which evidently corresponded with the mouths of the hair-follicles, and gave the surface a rough feel, like that of a rasp.

The model was taken from a girl, æt. 15, under Dr. Fagge's care in 1867. She had had the affection three months. It began on the outer side of the hips, and afterwards appeared on the inner side of the left knee. There was a good deal of itching at night, and the affected parts then became red. She improved considerably under treatment with lotions containing bichloride of mercury and glycerine. She also took vinum ferri internally.

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 343.

PITYRIASIS PILARIS. Three models (327 to 329) taken from different parts of a patient affected with this disease in its most extreme form.

327. The back of the left forearm and hand are shown in this

model. Corresponding with the mouths of all the hair-follicles there are greyish-white horny elevations. Even on the backs of the fingers, where twenty or thirty hairs are to be seen in a clump under normal conditions, there are in this case an equivalent number of hard raised points. The skin has in two places been torn by scratching until it bled: this may be taken as a proof that the disease caused itching.

328. This model shows the front of the right forearm and palm of the hand. On the forearm the horny points are well marked, but there the cuticle is also generally scaly, and in the palm a diffused squamous affection is present, such as would formerly have been called a psoriasis palmaris. The nails may be seen to be very greatly thickened, especially that part of them which grows from the bed.

329. Model of the outside of the right leg and foot of the same patient. The greater part of the leg is covered with the horny points, which are even larger than on the forearm. On the sole of the foot and heel the cuticle may be seen to be thickened and peeling off in large yellowish-white scales, exposing here and there a red raw-looking surface. On the back of the foot the skin is simply reddened and somewhat roughened with whitish scales. On the patella there are large white scales, somewhat as in psoriasis. In some places the skin has been wounded by scratching.

The patient, John T—, æt. 36, was in Stephen Ward, under the care of Dr. Habershon, in October, 1867. He had had the disease four years before, and was in the Clinical Ward under Dr. Barlow, and was discharged nearly well at the end of two or three months. Occasionally afterwards he had a little "scurvy," but he remained well until fifteen months before his admission, when the present eruption began to appear. He had at times drunk freely.

On admission a large part of the integument was affected with a squamous eruption, which in some places was diffused over the skin, while in other places it was confined to the mouths of the hair-follicles. The latter condition was very marked on the backs of the first phalanges of the fingers. All of these presented numerous little hard points, many of them black, but some whitish or yellowish. With a glass these could be seen to be made up of concentric rings, apparently formed of successive layers of the lining membrane of

the follicles. They were easily picked out as little hard grains. Similar rough points were numerous on the back of the hand and on the left forearm, but in these situations they were of smaller size than on the fingers. They were much more abundant on the extensor surface of the left forearm than on the flexor surface. On the upper arm they were more scanty. The trunk of the body was nearly free from them. The thighs were generally covered with them, except where the more diffused condition, afterwards to be described, was present. The outer surfaces of the legs had them in an extreme degree, the inner surfaces much less so. The backs of the feet were quite free from them.

Many parts of the cutaneous surface also presented large patches, in which the skin was somewhat thickened, reddened, rough, and forming branny scales in large quantity. These patches were often remarkably well defined, passing quite suddenly into healthy skin at their edges. The patches themselves contained a large number of the hard points above described. Round the edges of the patches there were sometimes to be seen a number of the isolated horny points, but in some places this was not the case. The right forearm presented a large well-defined patch on its outer aspect; and the front of the forearm, on to which this patch did not extend, was clean and free from the follicular affection which existed on the corresponding part of the left forearm. Another such patch existed on the back of the neck. Large ones covered great parts of both thighs, passing up over the trochanters, and down to the inner sides of the knees. There was also a rather ill-defined patch on the lower part of the abdomen.

There was abundant evidence that the general cuticle itself, independently of the hair-follicles, was affected by the disease. The palms of the hands were in a condition closely resembling an ordinary psoriasis palmaris, the cuticle cracking and peeling, so as to form plates of considerable size. The whole palms presented this appearance, and the corresponding surfaces of the fingers, except just over their pulps, where the skin was comparatively healthy. The soles of the feet were universally and still more markedly affected in a similar way. On the back also there were slight scaly spots, without any thickening of the derma, and a few similar ones were to be seen on the chest and abdomen.

The finger-nails were all much thickened; on the surface, however, they were smooth, presenting only indistinct striæ. The toe-nails were likewise very thick and discoloured, but still remained smooth.

The hair appeared quite natural, and the scalp was free from scales. In the beard was a scaliness, like that of a dry eczema, and fine scales fell off from it into the patient's coat. The skin of the face also was reddened, and the nose was peeling as if touched by the sun.

There was a good deal of itching, especially at night.

The patient felt quite well, excepting for the eruption. He very rarely perspired. He had sweated only once or twice in the whole course of the past summer, and then only over a small surface on the front of the chest.

The urine, repeatedly tested, contained no albumen; sp. gr. 1030.

In the first instance he was ordered Liquor. Arsenicalis ♏iij ex Decoct. Sarzæ t. d., and a lotion containing Sodæ Hyposulph. ʒss, Glycerini ʒiij, Spir. Rectif. ʒiij, Aquæ ad Oj. The chief alteration observed under this treatment was that cracks formed on the palms of the hands, between the fingers, and elsewhere. Subsequently he had a warm bath twice a week. After he began the baths the hands appeared for a time to be rather more free from scales, but at the end of a fortnight a crop of pustules came out, scattered over some of the patches, and the baths were then discontinued. The itching continued to be very severe; and on December 14th he was ordered to apply some Ung. Sulph., which appeared to allay it somewhat. He remained in the hospital until February 19th, 1868, when he left unrelieved.

Since that time he has been lost sight of.

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 341.

VERRUCA. WART.

This is a small circumscribed elevation of the skin, &c., presenting different histological characters in different cases. The most common form may be described either as a papillary growth or as a local hypertrophy. It consists of a circular group of elongated papillæ, capped with thick layers of epidermis. It has at first all its papillæ covered with a continuous cuticular mass, but after a time this is apt to become fissured, and broken up into as many separate masses as there are papillæ. In the softer forms of wart, on the other hand, the papillæ have distinct epidermic coverings from the first, and in some of them these are very thin, the growth consisting mainly of connective-tissue elements. Lastly, the so-called "fleshy" wart is devoid of papillæ, the cuticle being spread over it in a uniform layer, and the wart itself consisting of a growth of embryonic tissue, which is not unusually confined to the papillary layer, but may even involve the whole thickness of the cutis. This kind of wart is often pigmented, the colouring matter being deposited not only in the rete mucosum, but also in the connective tissue.

330. VERRUCA. Model of the abdomen of an old woman, on which numerous flat warts are scattered. All the largest of them are of a black colour.

The patient was in Mary Ward, under the care of Dr. Gull, for disease of the œsophagus, in the year 1864. The warts were said to have existed from birth.

331. VERRUCA. Model of the back of a man, presenting numerous flat warty growths, such as are so frequently seen in this situation in old people, but of unusual size. Several are each as large as a shilling, marked with grooves indicating the lines of separation between the papillæ of which they are made up, and covered with a rough brown cuticle. There are also numerous smaller spots, of a brown colour, but little raised above the level of the skin. These apparently represent an earlier stage of the affection.

The man was a patient of the late Dr. Babington's.

332. VERRUCA (?). Model of the right leg of a man, presenting an affection which appears to be of a warty nature, although its characters are in some respects peculiar. In its earliest stage it consists of shining tubercles of a reddish colour and with flattened summits. Some of them are isolated from one another, others are becoming confluent. In this stage the affection is not very unlike an early condition of keloid (of Alibert); but the tubercles are paler. As they enlarge and become more raised above the rest of the surface they tend to break up into a number of partially distinct papillomatous growths; and between the adjacent tubercles a number of smaller processes may be perceived, which are of an opaque whitish appearance, and are evidently warty. Some of the largest masses have developed themselves in the neighbourhood of a large red scar, which is seated over about the middle of the shin-bone. But probably this is accidental.

J. L—, æt. 52, was a healthy working man, of florid appearance, a currier by trade. He had been married at the age of seventeen, and had never had syphilis. The affection had begun two years before, on both legs, "appearing at first as a smooth, hard, glazed patch, with a mealy wart-like surface." It never receded or died away, but, on the contrary, had steadily advanced up to the time when the model was taken, in June, 1854.

CORNU CUTANEUM. HORNY GROWTH.

A horny outgrowth from the cuticle sometimes attains a considerable length, and may be spirally twisted, so as to look very like a ram's horn. It consists of masses of horny epidermic cells, formed upon papillæ of the cutis. According to some observers it springs originally from the fundus of a sebaceous cyst.

333. HORNY GROWTH. Model of the left side of the face of an old man, presenting a small horny growth over the malar bone. Its summit tapers irregularly and is bent sharply forwards.

Six years before the model was made a horny growth had first made its appearance at the same spot. After it had gone on growing for five years it was removed by operation. It had then attained a size somewhat less than that represented in the model. The present growth had, therefore, been only one year in existence.

334. HORNY GROWTH. Model of the back of the right hand of an old man, with a horny growth projecting from the skin over the fifth metacarpal bone. The elevation and thickening of the integument at the base of the growth are well shown.

The case was that of an old man, æt. 83, an inmate of Lambeth Workhouse. The growth had commenced four years before, and was at first supposed to be a common wart. It occasioned such severe pain that he was anxious at all hazards to have it removed by the knife. On account of his advanced age, however, this was not done. He died a few weeks after the model was taken.

HORNY GROWTH. Two models (335 and 336) of the back of the right wrist of an old woman, one showing a horny growth as it appeared when the patient first came under observation, and the other after its partial removal by operation.

335. In this model the growth is pointed at its extremity; it becomes flattened at its sides, and forms a sharp angle upwards, at about an inch distance from its base.

336. In this model the growth is abruptly truncated, projecting only about a quarter of an inch above the level of the skin; its cut surface is slightly depressed in the centre, and is of a reddish-brown colour, looking as if stained with blood; probably some of the vascular papillæ in the base of the growth were injured in the operation.

The patient was seventy years old. The growth had made its first appearance ten or twelve years before, and she at first supposed that it was a common wart. She tried every means to eradicate it, and at length determined, if possible, to be relieved of it by operation.

It was, therefore, partially removed; but afterwards it grew again very quickly, and it was estimated that in two years it would have reached the same size as before. However, she died a few months after the operation.

337. HORNY GROWTH. Model of the head of a woman, showing a horny growth which proceeds from the skin just behind and above the left ear, and is bent on itself like the end of a crozier.

The patient was fifty years old, and the horn had been of twenty-five years' growth. It was removed by Mr. William Nunn. Three large vessels supplied it, and had to be ligatured.

HORNY GROWTH. Two models (338 and 339) showing the successive stages of horny growths, in the same patient.

338. In this model a large horn is seen projecting from the skin over the lower part of the right sterno-mastoid muscle. Its base is surrounded by a reddened zone of skin, which is raised above the rest of the cutaneous surface, and even separated from it by a kind of neck, so that it may be said to have a short pedicle. It tapers to its extremity, and is spirally twisted like a ram's horn. Close to it is a much smaller growth, which is split into two divergent parts. Just below the right eye is a flattened wart-like mass of irregular form, and of about the size of a fourpenny piece.

339. In this model the growth below the eye is shown as it appeared three and a quarter years later. It is here represented as being situated below the *left* eye, and this is the position it really occupied; in the first model it was wrongly

placed below the *right* eye. It has undergone considerable increase in size; and besides much brown horny matter, it presents several large red and shining papillary elevations of the integument; two of them have attained a considerable length, and one of them is covered with horny matter at its summit, while on the other there is only a smooth shining layer of cuticle.

The patient was a woman, æt. 39. The tumour on the neck had been growing twenty-five years when the first model was taken. It was removed by Mr. Cock on October 12th, 1860. The second model was taken early in the year 1864.

See Preparation 1652[15].

LINEAR ATROPHY OF THE SKIN.—STRIÆ CUTIS ATROPHICÆ.

This affection, first described by Dr. Wilks, consists in the presence of lines or streaks which exactly resemble those seen in the abdomen during or after distension by pregnancy or dropsy, but occur at parts which have not been stretched unless during the natural processes of growth. They are depressed below the rest of the surface, and the skin can be felt to be thinned. Kaposi has investigated their microscopical characters, having excised a portion of skin from a living patient for the purpose. He found that both the horny and mucous layers of the epidermis were much thinned, and that the latter lay flat upon the corium, there being no papillæ or only exceedingly minute ones. The network of connective tissue and elastic fibres consisted of very few and thin bundles. The subcutaneous fatty tissue had also undergone atrophy, as well as the cutaneous glands and hair-follicles.

LINEAR ATROPHY OF THE SKIN. Three models (340 to 342) from a girl who had this affection.

340. This model represents the right hip marked by thin transverse lines, which exactly resemble the so-called *lineæ gravidarum*, and the largest of which is four inches long by half an inch wide. They are slightly depressed below the surface, and are covered obliquely by a series of smaller lines,

evidently corresponding with bands of the fibrous tissue of the cutis.

341. This model represents the left knee of the same patient, on which several of the atrophic lines are visible. Some of them bulge slightly above the rest of the surface, an effect which (it was noticed) could be produced by making the patient bring the muscles of the leg into action in standing upright.

342. This model represents the lower part of the right leg and the ankle of the same patient. Several of the atrophic lines can be seen on the leg, but they are smaller than those on the upper part of the limb. Just over the instep three very faint markings may be observed, which Dr. Wilks pointed out as indicating different stages of the affection. The highest one is bluish in tint; the next one is red, and the lowest is somewhat white and depressed. The red mark (says Dr. Wilks) is the most recent; this in a few days would assume a purple hue, and a week or two later would pass into the white or atrophic condition.

C. W—, æt. 20, was in Martha Ward in July, 1860. She was an hysterical girl. The affection had commenced five years before. The atrophic lines were very tender, so that the patient shrunk when they were touched. Fresh marks were constantly appearing.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. vii, p. 298.

LINEAR ATROPHY OF THE SKIN. Three models (343 to 345) from a young man.

343. This model represents the left knee, on which are several atrophic lines of considerable size. There are also some smaller ones on the leg, below the joint.

344. This model represents the other knee of the same patient, affected in a similar manner. The deformity of the limb is due to disease of the joint. The vertical line above the knee, which is covered by three of the atrophic lines, was believed to have been the scar of an incision made to open an abscess which once existed there.

345. This model represents the right foot of the same patient, in which an early stage of the affection may be observed, in the form of a number of narrow white lines crossing the dorsum of the foot.

Alfred H—, æt. 19, was a patient of Mr. Bryant's. He had observed some of the marks on his limbs as far back as six years before, when his right knee first became diseased. They caused him no inconvenience.

LINEAR ATROPHY OF THE SKIN. Two models (346 and 347) from a girl.

346. This model represents the outer side of the right lower limb, from a little above the knee downwards. It shows numerous white lines, arranged transversely to the axis of the limb, and presenting the oblique cross markings and all the other characters of "linear atrophy," but of smaller size than those represented in most of the other models.

347. This model represents the back of the right hand of the same patient, presenting a number of fine white lines also arranged transversely, and parallel to one another, but of much less definite character. The skin of the hand is generally reddened.

The special interest of these models lies in the fact that the patient had on her chest several circumscribed patches of scleroderma (see model 408), and thus that the case appears to indicate the existence of some relation between that affection and linear atrophy, a relation suggested by Dr. Wilks in his original account of linear atrophy of the skin in the 'Guy's Hospital Reports.' Indeed, I am not quite clear to which of these two diseases the affection of the hand should be ascribed.

PURPURA.

This is the technical name for the appearances produced by hæmorrhage into or beneath the skin. It occurs in the form of spots which vary in colour from red to purple, and which also differ greatly in size. These variations depend principally upon the seat of the

effusion of blood. In the close-meshed superficial part of the cutis, in which the vessels are minute, hæmorrhagic spots are small, of a bright red colour, and sharply defined; the deeper their situation the larger they become, and they are also more purple in tint and their borders less distinct. In the loose subcutaneous tissue they form large, irregular, discoloured patches, which are termed vibices.

As I have already mentioned, when speaking of erythema multiforme, the use of the substantive term purpura should be confined to those cases in which the hæmorrhage is primary. There are many cutaneous affections in which blood may be effused, but these are not examples of *purpura*, although they may be said to be *purpuric*.

Formerly a question much discussed was what the distinctions were between purpura and scorbutus. But it is clear that the cutaneous affection in the last-named disease is really a purpura, being merely the result of hæmorrhage into the skin. It is, in fact, a purpura due to a special cause, and attended with an affection of the gums and with other symptoms which do not occur in the other forms of purpura. The purpuric spots in scorbutus also present certain peculiarities; the smallest ones are very uniformly seated round the mouths of the hair-follicles.

348. PURPURA. Model of the left thigh of a child, showing purpuric spots, which from their livid colour and indefinite margins had evidently their seat in the deeper layers of the skin. There are also some large, faint, bruise-like patches or vibices.

349. PURPURA. Model of the left thigh of an old man, presenting an affection very similar to that shown in the previous model, but somewhat more extensive. The vibices in particular are more numerous, and one of them is very large.

350. PURPURA. Model of the back of the left arm and elbow of a young person. Sprinkled over the surface are an immense number of reddish-purple spots, many of them exceedingly minute, which from their sharply defined edges, their colour, and their small size, were evidently seated in the superficial strata of the cutis. Over the olecranon there are a number of larger spots, of a more livid colour, and

having less distinct borders. These are slightly raised above the level of the surrounding skin, and in the former catalogue they are therefore regarded as indicating a transition between simple purpura and the so-called P. urticans. I believe, however, that their characters simply depend upon the circumstance that the quantity of blood extravasated to form them has been sufficient to produce elevation of the surface. In one case of purpura I remember observing a distinct hæmorrhagic bulla.

351. PURPURA. Model of the right shoulder and arm of a girl affected with severe purpura. All the varieties of appearance presented by hæmorrhage into the integument existed in this case, from the most minute and sharply defined superficial hæmorrhagic points to subcutaneous vibices of considerable size.

The case belonged to that form of Purpura which is commonly, but not very logically, designated P. hæmorrhagica, in consequence of there being at the same time hæmorrhages from the various mucous surfaces, namely, in this instance, from the eyes, nose, mouth, tongue, gums, stomach, bowels, bladder, uterus. The patient was twenty years old.

PURPURA. Two models (352 and 353) from a patient affected with a severe and rapidly fatal purpura.

352. This model represents the back of the left forearm and hand. A large part of the surface of the forearm is of a deep crimson colour, passing into black. Here and there there are islets of skin having a natural appearance. On the back of the hand and between the knuckles there are smaller patches of very irregular form.

353. This model represents the left thigh and knee of the same patient. The pattern of the purpuric blotches is very peculiar and unusual, forming long streaks, rings, &c.

The patient was a woman who came under the care of Dr. Gull into Clinical Ward on February 21st, 1866. She had been ailing for two months, but the red blotches appeared only two days before her admission. She had been a free liver, but there was no evident visceral disease. She died in a day or two. No post-mortem examination was made.

354. Scorbutus. Model of the inner side of the left thigh, knee, and leg of a man affected with scurvy. Numerous small purpuric spots may be observed upon the thigh and knee, and on the ham and calf there are large vibices.

The patient was an inmate of the Dreadnought Hospital Ship.

355. Scorbutus. Model of the right arm and forearm of a man, showing numerous scattered purpuric spots, most of which are of very small size. In the flexure of the elbow there is a diffused staining, which perhaps represents one of the subcutaneous vibices so frequently seen in scorbutus.

The patient was on board the Dreadnought.

MELASMA.

This name is applicable to any case occurring in a member of the white race of mankind, and attended with a dark brown or blackish discoloration of the skin.

One form of it was shown by Dr. Addison to be dependent upon a destructive (and probably tuberculous) change in the supra-renal capsules; this may be distinguished as melasma supra-renale. In it the distribution of the colour presents the peculiarity that it is either an exaggeration of a natural pigmentation, or else corresponds with some abnormal pigmentation, which, however, may occur even in a healthy individual provided that the skin be exposed to a sufficiently intense and prolonged stimulation. In other words, the brown or black coloration of the skin in melasma supra-renale is often exactly like that which is seen in the dark races of mankind, or which may arise even in a white man who has for years been in a hot climate under the influence of the rays of a tropical sun. It generally affects chiefly parts exposed to the air, such as the face, the neck, and the backs of the hands; and the nipples and genital organs, which are normally pigmented in a slight degree, become of a very much darker colour. Or, again, the distribution of the pigment may resemble that which may be caused in any one by the heat of a fire (ephelis ab igne); of this I have seen a well-marked example. Parts which have been blistered also assume a much darker colour than in healthy persons. Minute black scattered

spots, too, are commonly observable, which one would summarily dismiss as pigmentary moles if one saw them in any one else.

From time to time cases of melasma not due to this cause have come under observation, and some of them are represented in the following models. In them the distribution of the pigment has been altogether different from that which is seen in supra-renal disease.

MELASMA SUPRA-RENALE. Two models (356 and 357) from a patient believed by Dr. Addison to have disease of the supra-renal capsules, as no doubt was the case.

356. This model represents the man's face, which is uniformly stained of a deep olive-brown colour.

357. This model represents the back of the right hand and forearm of the same patient. The discoloration of these parts is even deeper than that of the face, especially over the wrist and upon the knuckles. The hand looks just like that of a man belonging to one of the coloured races.

The patient was admitted into Guy's Hospital suffering from loss of strength and energy. The discoloration had come on gradually. He left the hospital unrelieved. He afterwards continued to lose strength, and in a few weeks died.

MELASMA SUPRA-RENALE. Two models (358 and 359) from a boy affected with Addison's disease of the supra-renal capsules.

358. Model of the patient's bust. The whole surface of the face, neck, and chest is seen to be of a deep yellow-brown tint. The scalp, which is shaven, is paler.

359. Model of the right hand and forearm of the same patient. These parts are also uniformly discoloured, the tint being a darker brown than that of the face.

This was the last case admitted into Guy's Hospital under the care of Dr. Addison.

R. B—, æt. 13, came under the care of Dr. Aldis at the Surrey Dispensary on March 29th, 1859, suffering from nausea, occasional vomiting, great pain in the back, and prostration. He always felt languid and disposed to lie down. The pulse was extremely feeble.

He had begun to droop about four months previously; up to that time he had been stout, with a fresh colour and clear skin. He was admitted into Guy's Hospital on August 17th, 1859, and he died on the 20th.

On post-mortem examination the body was found to be spare, but not wasted. It was universally of a brown hue, no parts having escaped except the palms and soles. There was a little pigment in the mucous membrane of the lips. The supra-renal bodies were slightly enlarged and "wholly converted into a tough, yellow, amorphous matter, interspersed with some greyer and more translucent substance."

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. viii, p. 52.

See also prep. of the skin, 1641[40], and model of the supra-renal capsules.

MELASMA SUPRA-RENALE. Two models (360 and 361) from a patient affected with this disease.

360. Model of the two nipples and of the adjacent parts of the skin. The nipples and areolæ are of a deep-brown or almost black colour. The rest of the skin is pale brown.

361. Model of the right leg and foot of the same patient. There is much distortion of the ankle, which was supposed to have been caused by disease of the joint. The skin is of a dark brown colour, especially about the external malleolus.

Wm. J—, æt. 25, was first admitted into the hospital on November 22nd, 1860, under the care of Dr. Gull, who then recognised that he was suffering from Addison's disease. It had been noticed two years previously that his skin was getting dark, and during the seven months which preceded his admission this had much increased. He also suffered from debility, vomiting, &c. Sometimes when he first rose after lying down his sight became dim. His face was of a warm brownish tinge. The lips presented a dark line where they touched. The upper limbs were paler. The abdomen was very dark. The legs were less dark than the thighs.

He was in the hospital on repeated occasions. He had something the matter with the left foot, which at one time caused him much pain. He was admitted for the last time on September 3rd, 1865, and died on September 25th. He was then very brown, the nipples being of an especially deep colour. The lower extremities were also much discoloured, especially the legs.

The post-mortem examination was made by Dr. Fagge. The body was not emaciated, there being a good quantity of fat beneath the skin and in the visceral cavities.

The brain was healthy. Each lung contained some calcareous

deposit at its apex, and on the posterior border of the lower lobe of the right lung there were some recent tubercles.

The heart was small and rather flabby. The solitary glands of the ileum were rather marked, but there was no ulceration.

The supra-renal capsules were small and contracted. The right was firmly adherent to the liver, seeming almost to be imbedded in its surface. It was exceedingly hard, and on section showed a quantity of firm white tissue as well as calcareous matter. The left one was so imbedded in fat, and attached by fibres passing through the fatty tissue, that its outline could not be defined. It also was a hard mass, and contained calcareous matter mixed with a viscid fluid.

The lower part of the tibia and astragalus, as well as others of the tarsal bones, were soft and easily cut by the knife. Their cancellous tissue was partly red, partly yellow or fatty. The ankle-joint was healthy, and none of the tarsal joints appeared to be in any way diseased.

Inspection, No. 244, 1865.

See also model of the supra-renal capsules.

MELASMA. Two models (362 and 363) from a case of simple melasma.

362. Model of the right side of the abdomen, which is mottled with black pigmentary stains of irregular form and distribution.

363. Model of the left thigh of the same patient taken at a later period, when that part had become affected. The whole surface is seen to be mottled with spots of a purplish brown colour, which here and there run together.

Frances H—, a young girl, came among Dr. Fagge's out-patients in the year 1870. She said that three years previously a few spots, of the size of peas, came on her breast and coalesced. Others appeared about the loins; faint at first, but afterwards darker. They showed no tendency to increase in size, but became much more numerous, so as to cover the whole trunk; their colour was especially deep on the lower part of the abdomen. At first there were none on the face, arms, or legs, and only some very faint ones on the neck. Some spots were, perhaps, slightly scaly. There was no itching. The skin was soft and supple, and the disease was evidently due to an abnormal deposition of pigment. No other member of the girl's family was similarly affected.

364. ? MELASMA. Model of the abdomen and pubic region of a young person, presenting irregular maculæ of a dark

yellowish-brown colour, many of which above the umbilicus are closely aggregated together; in the pubic region and groins the discoloration covers the whole surface uniformly.

This model was formerly entitled pityriasis nigra, but why that name was given to it does not appear, as there seems to have been no desquamation of the cuticle. In the former catalogue the affection is described as a "deep brown, partial discoloration."

365. MELASMA (CONGENITAL). Model of the right side of the chest and shoulder of a woman, which are uniformly mottled with spots of brown pigment, having a fine pattern that may perhaps be better compared with the pattern of a scarlatina rash than with anything else. The areola of the nipple is but little pigmented.

The patient was under the care of Dr. Habershon in Mary Ward. The affection was congenital.

LENTIGO VEL EPHELIS SOLARE. FRECKLES.

An affection consisting in the development of scattered small pigmented spots in those parts of the skin which are exposed to the sun, principally the face, neck, forearms, and hands. They are of small size, and their colour is yellow or light brown. They occur especially in persons of fair complexion.

LENTIGO VEL EPHELIS SOLARE. Two models (366 and 367) from a man who was "freckled."

366. Model of the face. The affection appears in the form of small brown maculæ of varying degrees of depth of colour, scattered over the forehead, nose, and cheeks. The eyelids are free. It may be noticed that the complexion appears to have been fair and the cheeks rather florid.

367. Model of the back of the right forearm, as well as of part of the upper arm of the same man. The forearm is uniformly stained of a yellowish-brown colour, and scattered over it are numerous brown maculæ exactly like those on the face.

There are also some spots of congestion. The discoloration and maculæ cease rather abruptly at a line just above the elbow, and no doubt the man had been in the habit of turning up his sleeve as far as this line, and so had exposed the limb to the sunlight.

EPHELIS AB IGNE.

This is another pigmentary affection, which forms a network of dark brown lines arranged in such a way as to suggest that their distribution is regulated by that of the veins in the subcutaneous tissue. It occurs only on the legs below the knees, and is believed to be due to the influence of heat radiated from an open fire, although it is certainly often seen in persons who do not admit that they have been in the habit of sitting before the fire with their knees exposed.

368. EPHELIS AB IGNE. Model of the inner side of the right knee and leg of a man, which are marbled with this affection. The lines formed by the deposition of the pigment coalesce, giving rise to a network enclosing islets of healthy skin. Some of the larger striæ are of a very dark brown colour.

No history of this case has been preserved beyond the statement that the affection was due to exposure to the fire.

369. EPHELIS AB IGNE. Model of the inner side of the left knee of a patient presenting an affection almost exactly like that shown in the last model. This runs upwards along the inner surface of the thigh to an extent which is unusual. Over the patella there is a fainter and more diffused brown mottling.

370. EPHELIS. Model of parts of the left arm and forearm of a young man affected with ephelis. This occurs in the form of broad brown patches, of very irregular shape. In the interspaces between them the skin is of its natural colour. The patches cover the whole of the anterior and inner surfaces of the forearm, and the inner side of the upper arm.

The outer side of the arm is free. The patches are not all over of the same uniform tint, but are slightly mottled.

There is no history of this patient to show whether the affection was due to the solar rays or to the heat of a fire, &c. From the characters of the affection I should rather be inclined to suppose that the former was the case. It may be observed that the former catalogue states that the patches were "slightly elevated." If so, the affection could not have been an ephelis at all.

LEUCODERMA.

An affection attended with an irregular distribution of pigment in the skin. Some parts are whiter than in health; these generally form well-defined round patches, which may either be isolated or run together into patches of greater or less size. Round them the surface is more or less deeply pigmented in excess of what is natural. The boundary lines between the white and brown parts are sharp and definite, and are so curved that the white patches appear convex towards the brown. The opposite borders of the pigmented tracts are ill defined, and fade off gradually into the healthy skin.

From this definition it is evident that the name of leucoderma is only partially applicable to the affection now under consideration. But it is the universally accepted term; and to attempt to make a change would only be to introduce confusion into the subject. In proof that there is a considerable excess of pigment in certain parts of the skin in leucoderma I may mention that Dr. Addison at first included several well-marked instances of that affection among his cases of supra-renal melasma. This is evident from the plates appended to his work; and I believe that the following model illustrates the same fact. When it was made the case was supposed to be one of Addison's disease, but (as Dr. Wilks has pointed out, and as is sufficiently shown by the models in our museum) in that disease the pigmentation is more uniform, and does not include any definite white patches. Dr. Wilks, in fact, long ago pencilled the word "*ephelis*" against the description of this model in the former catalogue: but I believe that it should really be placed under leucoderma. It is not, indeed, evident that the pale parts of the skin are less pigmented than natural; but the report of the case states that some of the hair had turned grey and one eyebrow white, and

exactly such a partial loss of colour in the hair is common in leucoderma, while I am not aware that it ever occurs in ephelis.

371. LEUCODERMA. Model of the back of the left forearm and hand of a woman, which are irregularly mottled with a dark yellowish-brown pigmentation. This is not universal, but encloses islets of skin of a pale colour.

The patient had been in poor health for several months. Part of her hair had become of a grey colour, and one eyebrow had changed to white.

XANTHELASMA VEL VITILIGOIDEA.

An affection which shows itself in two distinct forms, respectively designated "plane" and "tuberose." The former consists of sharply defined smooth patches of a cream-yellow colour, which look slightly raised above the adjoining surface, but cannot be felt. The spot at which xanthelasma planum first appears is commonly above the internal canthus of one of the eyes. Afterwards it develops itself at the corresponding point on the other side; and fresh patches break out which coalesce and form broad rings, more or less completely surrounding the eyelids. In the meantime other patches may form on the hands, scrotum, and elsewhere. The mucous membranes of the gums, tongue, palate, trachea, and bile-ducts may also become similarly affected.

The tuberose form of xanthelasma, which is always preceded by the plane, occurs especially in the ears, elbows, and knuckles; in which last situation, however, the nodules are sometimes not in the skin, but in the extensor tendons.

The histological characters of xanthelasmic patches have recently been investigated by several observers, but there are some differences of opinion as to the explanation of the appearances that are seen. On placing a thin section of the affected part of the skin under a low power of the microscope one finds that the cause of the opaque-yellow colour is the presence, in all but the most superficial part of the cutis and even in the subcutaneous tissue, of grains and large masses of a substance which (as might be expected) looks black by transmitted light. When they are more highly magnified the masses are seen to be aggregations of little bodies of irregular form, some oval, some triangular, some rod-shaped. Mr. Howse

(who some years ago made a detailed examination of portions of the skin from the patient whose case is illustrated by models 378-380) thinks that they are cells of inflammatory origin which have undergone fatty degeneration, and afterwards become converted into lumps of calcareous matter, crystalline bodies, &c. Certainly they have sometimes appeared to me to have a crystalline appearance. They have a bright refracting character, and I have seen several of them arranged side by side in the form of a fan, so as to resemble radiating crystals. Dr. Legg, however, regards them as cells infiltrated with fat, and this view of their nature is supported by certain observations of Waldeyer as to the histology of xanthelasma limited to the eyelids. Mr. Howse suggested that the affection is analogous to atheroma of an artery, but both Waldeyer and Dr. Legg maintain that this comparison is not altogether applicable, since in xanthelasma there is no tendency for softening to occur, with the formation of a fatty detritus, granule-masses, and cholesterine crystals.

Xanthelasma occurs clinically under two sets of conditions. In one class of cases it is always of the plane variety and limited to the eyelids; it is then sometimes inherited, and Dr. Church has shown that it may appear in a large number of members of the same family. In many cases it is closely associated with a tendency to frequent sick-headaches, as Mr. Hutchinson has pointed out.

The other class of cases in which xanthelasma appears is that of protracted jaundice. Sometimes it is even then limited to the eyelids; but more frequently it is widely distributed, and occurs in the tuberose as well as in the plane form. It never begins to make its appearance until the jaundice has lasted several months, and often not for a year or even longer still. Hence the kinds of jaundice most apt to produce it are those due to cirrhosis of the liver, obstruction by gall-stones, and simple stricture of the common duct. Cancerous affections destroy life too rapidly to be accompanied by it. Virchow has recorded as an instance of xanthelasma multiplex a case in which there was no jaundice, but I think his coloured drawing shows conclusively that, whatever the microscopical characters of the affection, its naked-eye appearances were altogether different from those of the disease which in England is known under that name. It is, however, said that a case of multiple xanthelasma without jaundice occurred at University College Hospital.

XANTHELASMA PLANUM. Two models (372 and 373) taken from a woman presenting this affection.

372. This model represents the patient's face. It is seen to be

universally of a lemon-yellow colour from jaundice. Round the eyelids there are cream-coloured patches, very symmetrically disposed, which spread outwards from the internal canthus of each eye and tend to encircle the lids.

373. This model represents the palm of the right hand and part of the forearm. The skin is jaundiced; during life it is said to have been of an olive-brown colour. Along the ridges bounding the lines of flexure of both the hand and the fingers the cream-coloured appearance is well marked. It also affects some parts of the fingers where lines of flexure would hardly have been met with.

The patient was Mrs. B—, æt. 42, of fair complexion and blue eyes, married, and the mother of eleven children. She had been the subject of jaundice for fourteen months, with much pain in the right hypochondrium, when the skin round the eyelids and on the palms of the hands became affected with xanthelasma. The skin at that time was of a lemon tint. The patches on the eyelids were slightly raised, but not at all indurated. They were slightly more sensitive than other parts.

The models were taken ten months after the first appearance of the xanthelasma. The disease remained stationary until the patient's death, two years later. Towards the end of the case the colour of the surface deepened to a mahogany brown.

See a communication by Dr. Addison and Dr. Gull in the 'Guy's Hospital Reports,' series iii, vol. vii, p. 267. This was the first paper on the subject; no case of the kind had ever before been described, except by Rayer, who figured the affection of the eyelids under the name of plaques jaunâtres des paupières. The term used for the affection by Dr. Addison and Dr. Gull was vitiligoidea. The much more convenient word xanthelasma was coined by Mr. Erasmus Wilson.

XANTHELASMA PLANUM et TUBEROSUM. Four models (374 to 377) taken at different times from a patient affected with xanthelasma.

374. This model represents the palm of the left hand. Along the ridges bounding the grooves of flexure in the palm and also on the fingers there are spots and lines of a pale yellow colour. These in some places, particularly about the roots of the thumb and fingers, are raised, indicating transitional forms between the plane and the tuberose varieties of xanthelasma. About the wrist also there are some small tubercles.

375. Model of the left elbow of the same patient, showing several scattered tubercles of a yellow colour over the olecranon.

376. Model of the back of the left hand of the same patient, taken seven years after the former models. Over the metacarpo-phalangeal joints, and also over the interphalangeal joints, there are nodules, some of which are nearly as large as hazel nuts. These appear to be situated in the skin, but it is stated that those over the metacarpo-phalangeal joints were situated in the tendons, the integument over them being (at one time at least) unaffected. Some of the nodules, especially over the joints between the last two phalanges, have a marked resemblance to gouty concretions. The affection in its plane form appears to have become considerably more extensive in its distribution since the former model was taken; it can be seen between the fingers, extending round from their palmar towards their dorsal surfaces.

377. Model of this patient's left elbow, taken at the same time as 376, and seven years after the former model of the same part (375). The yellow tubercles have increased greatly in number, and have coalesced into a patch larger than a half-crown, in the centre of which is a still more elevated round mass, which is of a red colour from congestion of the vessels in the skin covering it. Below the elbow is a smaller patch, formed of a few rather flat, confluent tubercles.

Eliza P—, æt. 33, the mother of six children, was first attacked with jaundice in 1848, two days after being much frightened and receiving a blow in the left groin while attempting to separate two men who were fighting. From time to time she had severe paroxysmal pains about the hypochondrium, lasting for a day or two; the liver also became enlarged and tender. Four months later she came into the hospital under Dr. Hughes' care. At that time she complained much of itching, but the cutaneous affection did not begin to appear until later, when the jaundice had existed fourteen months. It first showed itself on the hands. Soon afterwards a yellowish patch made its appearance near the inner canthus of one eyelid, and next another at exactly the same spot on the opposite eyelid. The two first models were made in the year 1850. The affected parts were very tender, so that, for instance, it gave her pain to use a knife to cut bread. The surface of the body was of a dull lemon tint.

After the two first models were taken the tubercles rather quickly increased in size. At the time when the report of the case was published by Dr. Addison and Dr. Gull (in October, 1851), there were tubercles on the backs of the joints of the fingers of the right hand, on the right knee, on the upper surface of a great toe, and on both ears. In the course of the following year the tubercles became still larger and more numerous, and it was observed that some of the tendons over the knuckles were tuberose, the skin covering them being unaffected. She remained jaundiced, but was still well nourished.

It is to be regretted that there is no further record of the progress made by this patient, nor of her condition at the time when the two later models were made. They appear (on the authority of MS. notes by Dr. Wilks in the former catalogue) to have been taken seven years after the two earlier ones. This must have been in the year 1857, nine years after the first commencement of the jaundice.

See drawings 157^{52}, 157^{53}, 157^{54}.

See Dr. Addison and Dr. Gull's papers in the 'Guy's Hospital Reports,' series ii, vol. vii, p. 269.

XANTHELASMA PLANUM et TUBEROSUM. Three models (378 to 380) from a patient presenting this affection.

378. Model of the face, showing cream-coloured patches round the eyes, and the jaundiced colour of the skin generally.

379. Model of the right arm and elbow, showing a large number of tubercles scattered over the upper arm, especially on its outer surface. These may be described as very similar to one of the well-known varieties of the papular syphiloderma (syphilitic lichen). Over the olecranon there is a large tuberose mass, covered with confluent tubercles, but apparently seated mainly in the subcutaneous tissues.

380. Model of the back of the left hand of the same patient, showing both forms of xanthelasma. The plane variety of the affection is chiefly seen on the fingers, spreading round from their palmar to their dorsal surfaces. The tuberose variety exists over many of the joints of the fingers. In the case of the metacarpo-phalangeal joint of the middle finger it may be observed that the principal nodule is seated beneath the skin; it, in fact, occupied the tendon of the extensor muscles.

Mrs. L—, æt. 39, was first admitted into Guy's Hospital under Dr. Pavy's care on May 29th, 1866, when the following account of her case was obtained:

"Three years ago she was confined of her eleventh child, and six weeks afterwards she became affected with jaundice. The jaundice was associated with great stinging and itching of the skin, especially in the hands and feet. It lasted for about ten months, disappearing two months before her next and last confinement. A fortnight before this confinement one of her sons died rather suddenly, and the shock so upset her that two days afterwards she found herself still more deeply jaundiced than she had been before. Since then she has never been free from jaundice. Shortly after its reappearance she suffered again from stinging and itching of the skin, which was also tender to the touch. Thus it gave her pain to sit down, from tenderness of her seat; and she also experienced pain when she took hold of, or held, any hard substance in her hands. About this time small lumps began to appear on the backs of her fingers; similar ones have since come out on other parts; cream-coloured patches have likewise shown themselves upon the hands, around the eyes, and elsewhere. Those around the eyes first became visible about two months before her admission. Both lumps and patches have remained without undergoing any change, except that they have increased in size. Her skin generally is of a greenish-yellow colour. . . . . A large swelling exists in the upper part of the abdomen on the right side, which is evidently an enlarged liver. It is tender to the touch and dull on percussion, the dulness extending three inches below the ribs. No irregularity is discoverable on its surface.

"The patches in the skin appear as if an opaque substance pervaded its texture. The alteration is evidently situated in the cutis, the cuticular covering being natural. A broad band thus encircles each eye, giving to the face a very peculiar appearance. The affection may also be observed to be irregularly dispersed over the sides of the face and neck. It forms extensive patches on the backs of the hands. It occurs in spots upon the palms and the palmar aspect of the fingers, and in a like manner upon the heels. It is scattered here and there over the body generally. Where it exists the surface is very slightly raised; at least this is the case with the patches round the eyes; but there is no loss of the natural suppleness and softness of the skin. In the tips of the fingers it occurs in little discrete spots, and thus gives them a somewhat nutmeggy appearance. On here passing the finger attentively over the surface, a slightly nodular character is perceived.

"The tubercles vary in size, the largest being of not quite the size of a horse-bean. They occur on the backs of the fingers, and particularly over the knuckles; on the ears, shoulders, elbows, and outer

sides of the arms; and on the nates, knees, and ankles. Some are simple tubercular elevations, of a whitish colour; others, the largest, are irregular, and composed of clustered nodules. Upon the ears, little vessels are discernible, meandering over them. Upon the knuckles they look something like gouty concretions. . . . . In connection with the extensor tendons over the metacarpo-phalangeal articulations of the index and middle fingers of the right hand and of the middle finger of the left hand, there exist firm tubercular masses, which move with the tendon underneath the skin, which last is perfectly healthy."

In January, 1868, Dr. Fagge sought out this patient at her home, and found that her condition had altered greatly for the worse. The liver had gradually been getting larger, the patches and nodules in the skin had increased in size, and the jaundice had become deeper in colour.

On February 4th she attended as an out-patient under Dr. Fagge's care. She was ordered to take Acid. Nitro-hydrochloric. dil. ♏x, Ext. Taraxaci ʒi, Decoct. Sarsæ ℥i, ter die.

On February 18th she stated that some of the creamy patches had disappeared; that her motions were darker, and her urine lighter; and that the jaundice was fainter. The nodules on her hands and elbows were also less tender than formerly, so that she could rest her elbows on a table or chair and could use her hands.

On February 25th it was noticed for the first time that the mucous membrane of the mouth was affected, there being a yellow discolouration of the hard palate and a well-marked and well-defined creamy change in the gums, especially at the angle where the gum joins the lip. There were also nodules just inside the nostrils.

On 31st March the report says, "the liver now reaches only to the umbilicus. The nodules on the abdomen and chest are much diminished. The nodules on the hands and feet are smaller, softer, and less painful than before."

April 13th, 1869.—"She is much better, the patches being less marked. The spleen is much enlarged."

October 4th, 1869.—"She has continued to improve; the nodules are much smaller; those on the fingers have almost disappeared."

February 8th, 1870.—She says that lately she has been losing her jaundice. She can walk three miles to and from the station with ease; the feet are now free from the affection.

She always attributed the improvement in her condition to the sarsaparilla which she continued to take, and which she had first taken of her own accord before Dr. Fagge saw her. He was rather inclined to ascribe the subsidence of the xanthelasma and of the pain caused by it to the nitro-hydrochloric acid and taraxacum. There appeared to be no doubt whatever that the medicine did in some way do her good.

In September, 1870, she died of an attack of hæmatemesis. A post-mortem examination was made by Dr. Fagge. The xanthelasmic

patches round the eyes were still well marked, but those on the hands and elsewhere were very much less distinct. The lining membrane of the larynx and trachea was affected with xanthelasma. The heart was fatty. The aorta and pulmonary artery were each atheromatous. The liver weighed 60 oz.; its surface was smooth, but its substance was nodular from cirrhosis.

See drawings 157^{55}, 157^{55x}, 157^{55xx}. Prep. 1697^{40} of Larynx, &c.

See Dr. Pavy's paper in the 'Guy's Hosp. Rep.,' series iii, vol. xii, p. 266. See also Dr. Fagge's papers in the 'Path. Trans.,' vol. xix, p. 436, and vol. xxiv, p. 242.

XANTHELASMA. Three models (381 to 383), from a patient affected with xanthelasma.

381. This model shows the palm of the right hand. The skin at the bottom of all the furrows is seen to present the peculiar change. The whole skin is jaundiced.

382. This model shows the right side of the face of the same patient. The creamy patch on the upper eyelid may be seen. The whole face is of a yellow colour, and looks rough.

383. This model shows the same patient's back. The skin at the upper part shows a vague mottled redness, and a few large flat papules, some of which seem to have been injured by scratching. I should suppose that these appearances were connected with the pruritus which is so commonly present in cases of jaundice, and which was, in fact, very troublesome to the man from whom the model was taken.

The patient, George T. Q—, æt. 32, was admitted under the care of Dr. Moxon in May, 1872. He was a dark man, deeply jaundiced. About sixteen months previously his illness had commenced with loss of appetite and a burning sensation in the throat. After six or eight months jaundice began with a severe attack of colic, lasting two or three hours. Three months afterwards he suffered again from a pain of agonising character. The stools varied in character, generally containing only very little bile. When admitted into the hospital he showed the ordinary characters of obstructive jaundice, suffering little pain. He complained greatly of pruritus. There was marked xanthelasma, especially of the hands, scrotum, and back. Hæmorrhage occurred from the nose, bowels, and bladder. He became comatose, and died after being in the ward a month.

On post-mortem examination he was spare, but not wasted. There were xanthelasmic patches in the skin of the palms and of the bends of the knuckles; the ears and cheeks also presented this change; there was but little in the eyelids; the back was mottled with it, but its principal seat was the scrotum. Wherever it was developed pigment had disappeared; elsewhere the skin was very dark.

There was xanthelasma of the trachea, and also of the dilated gall-ducts and of the capsule of the spleen. The hepatic duct was affected with a simple stricture. The liver showed an early stage of cirrhosis. Its tissue was breaking down, and contained crystals of tyrosine.

See Dr. Moxon's paper in the 'Path. Trans.,' vol. xxiv, p. 129.

384. XANTHELASMA TUBEROSUM? Model of the back of the right hand and wrist of a patient affected with an eruption of doubtful nature. It consists of a number of rather flattened papules, of the size of millet seeds, some of which are colourless, others slightly pinkish. These are scattered over the surface, especially on the back of the hand. The skin is jaundiced.

The patient was a youth, about eighteen years old, and was under Dr. Barlow's care in Job Ward. He had persistent jaundice, the cause of which was obscure. The affection of the hands was "sometimes relieved for a few days, but continued in the condition shown in the model at the time of his leaving the hospital." He remained an out-patient for five or six months, and at length went away unrelieved.

This case is described in the former catalogue as having been one of vitiligoidea (or xanthelasma), and Dr. Addison and Dr. Gull appear to have regarded it as an undoubted instance of the affection in question. I therefore have not ventured to give it any different designation. But it is evident that it has very few characters in common with those shown in the other models, with the exception, perhaps, of 374. I am disposed rather to think that it was a lichen, and associated in all probability with the pruritus which is so often present in jaundice. Unfortunately it is not stated whether the patient complained of itching. Nor, again, is it recorded whether the same individual papules were present throughout the whole time during which the case was under observation (as would occur in xanthelasma), or whether they did not rather come out in succession, dying away and being replaced by others (as would be the case with the papules of a lichen, due to the cause I have suggested).

LUPUS.

A disease of the skin, of which there are two forms; if, indeed, these should not rather be regarded as distinct affections.

One of them, which is commonly called *Lupus erythematosus*, occurs chiefly upon the face. It commonly begins on the nose, and passing across its bridge spreads out over either cheek. Its distribution has thus been compared to the form of a bat with wings extended. The affected part has a sharply defined raised border; its surface is red and scaly; and it often presents small horny points, which are evidently due to accumulation in the dilated mouths of sebaceous ducts. Cases presenting this last character were described by M. Cazenave as distinct, and he gave to them the name of *scrofulide cornée*. Microscopically, Lupus erythematosus is said by Neumann to begin in a thickening of the walls of the sebaceous glands, partly by connective tissue, partly by cell-growth. As the disease advances the sebaceous glands lose their structure and disappear. At the same time the papillæ become greatly enlarged, and a growth of cells takes place, especially in the most superficial layer of the cutis.

The other form of lupus has received various names, and has by some writers been subdivided, it being supposed that there are several varieties of it, one tuberculous, another squamous, a third ulcerating, &c. These, however, are all phases of the same affection, which originally consists in the development of a pinkish-grey translucent growth in the skin. This at first raises the surface into nodular or tubercular elevations, which, after a time, sometimes flatten down, becoming covered with white silvery scales, and in other cases suppurate at their summits and form thick brown crusts. In some cases, again, ulceration takes place; this is generally superficial, but it is attended with great contraction and puckering of the affected parts, which often give rise to appearances suggestive of there having been a great loss of tissue. Thus, the eyelids become everted and drawn down upon the cheek; and one might suppose that there had been extensive sloughing. But a careful examination shows that the cartilage in each lid is still intact. The angles of the mouth become rounded and the lips adherent to the gums; a careless observer might well imagine that there had been spreading ulceration, but this is not the case. The cartilages of the nose, however, often undergo absorption, the skin becomes tightly stretched across from the inferior borders of the nasal bones to the

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On the other hand, lupus erythematosus often presents itself
in middle-aged persons, in whom no scrofulous disposition can be
recognised.

385. LUPUS ERYTHEMATOSUS. Model of the face of a patient affected with this disease. It may be seen to extend across the bridge of the nose and to spread out upon each cheek, so as to justify the comparison which has often been made between its distribution and the form of a bat with extended wings. There are also smaller patches of the disease on the eyelids, forehead, and temporal regions, and a single spot is commencing on the upper lip. The margins of the affected parts are well defined, have a festooned outline, and are redder and more raised than the rest. The diseased surface generally is slightly reddened, and is covered here and there with small scales; and in some places it is assuming a whitish-brown colour, evidently indicative of

upper lip; the nostrils are reduced to round pin-holes, or may even be obliterated.

This description leaves no place for the affection formerly described as *Lupus exedens*, but of it I can only say that I have never met with any affection requiring such a name. The models which are contained in our museum, and which formerly received that designation, must, I believe, now be placed under some other form of cutaneous disease. (See models 118, 119.)

There is, however, one model (398) which was not formally entitled lupus exedens, but in which the nose has certainly undergone destruction to a greater extent than I have ever seen in lupus. It may, perhaps, be a question whether the affection did not owe its peculiarities in this respect to a syphilitic taint. But the appearances shown over the rest of the face, and also the state of the bones, certainly accord much better with the idea that it was really lupus. If so, I can only say that the case is in my experience altogether exceptional.

A very important question in regard to lupus concerns its possible relation to scrofula and internal tuberculous diseases. It is certain that lupus vulgaris is especially apt to occur in scrofulous persons; I have occasionally seen it in two members of the same family. The cell-growth in the skin which makes up the nodules (or "tubercles," in the dermatological sense) differs, however, from that which constitutes ordinary tubercle; it is a greyish-pink substance, without any tendency to early caseation.

On the other hand, lupus erythematosus often presents itself in middle-aged persons, in whom no scrofulous disposition can be recognised.

385. Lupus Erythematosus. Model of the face of a patient affected with this disease. It may be seen to extend across the bridge of the nose and to spread out upon each cheek, so as to justify the comparison which has often been made between its distribution and the form of a bat with extended wings. There are also smaller patches of the disease on the eyelids, forehead, and temporal regions, and a single spot is commencing on the upper lip. The margins of the affected parts are well defined, have a festooned outline, and are redder and more raised than the rest. The diseased surface generally is slightly reddened, and is covered here and there with small scales; and in some places it is assuming a whitish-brown colour, evidently indicative of

the subsidence of the affection and its termination by the formation of a thin cicatrix. This is particularly noticeable on the nose and on the left cheek.

386. LUPUS ERYTHEMATOSUS. Model of the face of a woman affected with this form of lupus. The disease occupies the usual seat, spreading from the bridge of the nose to each cheek, and there expanding, so as to cover a large area. The left cheek, however, is as yet only partially occupied by it. The affected surface has a defined red border; it is already cicatrizing in some places, especially on the right cheek. It is slightly scaly, and presents numerous black points, evidently corresponding with the mouths of dilated sebaceous ducts filled with dried secretion.

The patient, L. C—, æt. 41, came under the care of Dr. Gull in January, 1862.

As I have already mentioned, this form of lupus was described as a distinct affection by M. Cazenave under the name of "scrofulide cornée."

See the 'Guy's Hospital Reports,' series iii, vol xiii, p. 215. See also drawing 143[20].

LUPUS ERYTHEMATOSUS (?). Two models (387 and 388) from a patient presenting a cutaneous affection of peculiar characters, but which was probably allied to the superficial form of lupus more nearly than to any other recognised disease.

387. Model of parts of the outer surfaces of the right arm and forearm. A large part of the surface shown in this model is reddened, and presents irregular elevations, from some of which the cuticle is desquamating in small flakes. The outer side of the arm and the convexity of the elbow are the parts principally affected.

388. Model of the back of the left hand and forearm of the same patient. These parts present a few irregular scattered patches, like those on the forearm, but of much smaller size. But in addition to these there are four or five sharply defined depressed cicatrices, of irregular form and of a pale

blue colour, surrounded by raised red borders. These doubtless represent a more advanced stage of the same affection.

The patient was a young woman under the care of Dr. Pavy.

LUPUS VULGARIS. Two models (389 and 390) from a child affected with lupus.

389. Model of the right forearm and hand. About the elbow there are some scattered tubercles, partially covered with yellow crusts. On the back of the forearm there is a large red patch, the peripheral part of which is covered with a thick yellow crust, while its centre is red and in parts moist and oozing.

390. Model of the right thigh and leg of the same child. Towards the middle of the thigh there are two clusters of red tubercles, and on the inner side of the leg there is a larger patch of a similar kind. Some of them are partially covered with crusts, but they could not be supposed to belong to any disease but lupus. But just above the knee there is another patch, which is covered with a thick yellowish-brown crust, and this looks very like a patch of impetigo, except that it is surrounded by a raised red border, within which the crust seems to be imbedded, as though the surface beneath it were ulcerated. Outside this patch the skin is reddened for some little distance, and presents scattered flaccid pustules, some of which are drying up into thin scabs.

The child was a patient of Dr. Gull's, in Clinical Ward in March, 1866.

LUPUS VULGARIS. Three models (391 to 393) from a young woman affected with lupus.

391. Model of the face of the patient, presenting two patches of the disease. One of these occupies the left cheek, side of the nose, and eyelid. It presents a number of reddish tubercles, which are especially distinct towards the nose and on the upper eyelid, where the disease appears to be spreading, and where they cohere into raised borders or patches. On the cheek, on

the other hand, the disease is in part subsiding and forming cicatrices; some parts of the surface also are scaly in this position. The other patch of lupus is situated below the chin; it presents similar characters, and has a marked tendency to pucker and contract. On the right cheek is a smooth depression, with brown discoloration, apparently the result of the subsidence of a third patch.

392. Model of part of the right arm and forearm of the same patient, presenting several spots and patches of the disease. A large patch on the flexor surface of the elbow shows well the tendency to pucker and contract, which is one of its marked features. Over the olecranon is a large red patch covered with white scales, so that it might have been mistaken for one of psoriasis, particularly since it occupies a region which is a favorite seat of that disease. The skin here is much reddened and thickened, and thrown into folds; and the affection is evidently in a comparatively early stage. Just above the elbow is an isolated pale pustule. This was of very slow formation, and, according to the patient's statement, it indicated the commencement of the disease, which she said always began in the formation of just such a spot.

393. Model of the back of the right hand and forearm of the same patient. Over the wrist is a broad patch of the disease, which looks moist and oozing, and is covered in some places with thin yellowish crusts, instead of the scales which exist elsewhere. The affection might, in fact, be mistaken for an eczema impetiginodes were it not that the part of the patch nearest to the elbow is cicatrizing and presents the ordinary appearance of lupus. Still higher up is part of another patch, with a defined red border, the greater part of which has healed, producing a superficial cicatrix.

The patient, M. T—, æt 27, had had the disease since she was seven years old. It came first on the right hand, then on the face. As has been already stated, she said that it always began as a spot like that which existed on the forearm at the time when the model was taken. This increased in size and suppurated very slowly, "in two years attaining the size of a hen's egg"(!) The abscess then broke, and

discharged dark brownish pus for several weeks; the margin afterwards slowly ulcerated, and the centre healed.

She had always enjoyed good health in other respects, excepting that she had scarlet fever eight years back; after this the lupus showed signs of improvement.

This case affords excellent illustrations of some forms of lupus, the clinical recognition of which is a matter of very great importance; those, I mean, which might be mistaken for psoriasis or for eczema. As regards the patient's account of the way in which the disease developed itself, I think the models themselves convey clear proof that it did not always take the course she described. But I am myself prepared to admit that lupus of the skin is sometimes secondary to suppurative inflammation which begins in the subcutaneous tissues, particularly in the lymphatic glands.

394. LUPUS VULGARIS. Model of the right hand of a girl affected with this disease. Almost the whole of the back of the hand is covered with a large patch, the centre of which is red and scaly, while the periphery is covered with thick greenish-brown crusts. The patch reaches from the wrist to the roots of the fingers, and extending a little way upon these there is a red state of the skin, and in the case of the ring and little fingers a distinct thickening of its substance. This would probably have been sufficient to prove that the disease was not a mere impetigo, for which, by a careless observer, it might have been mistaken.

The patient, Eliza C—, æt. 13, had had this patch on the back of the hand for seven years, as well as another one on the left forearm. The skin of the affected part was red, dry, and hard; and it did not appear that the crusts had been formed from definite pustules. She was an out-patient under the care of Dr. Wilks in May, 1862.

395. LUPUS VULGARIS. Model of the left hand of a girl, presenting a large patch of lupus, which covers the whole of its dorsal surface. The centre of the patch has undergone the healing process, and is covered with a thin cicatricial skin, which shows an evident tendency to contract. The periphery is covered with massive brown crusts, which towards the ends of the fingers are split up into little angular or rounded masses. This is caused by the circumstance that the crusts are formed upon the summits of soft tubercular

elevations. Over the knuckle of the forefinger, in fact, some of the tubercles may be seen; they have lost their roofing and are covered by a thin shining layer, consisting of little more than the rete mucosum.

Mary H—, æt. 16, was in the Clinical Ward in May, 1863. She had had the disease ever since she was four years old. It is said to have been "surrounded by a raised hard border, which sometimes discharged." She was much better when she left the hospital.

396. LUPUS VULGARIS. Model of part of the chest and neck, presenting a large cicatricial patch, which shows a very marked tendency to contract, and in places is of a brownish-red colour. Its border is well defined; and at some parts this is raised into a ridge, which doubtless originally presented more or less isolated tubercles, and is here and there covered with crusts. At these spots the disease was probably spreading at the time when the model was taken.

397. LUPUS VULGARIS. Model of the face of a man affected with lupus in a very advanced stage. The nose, upper lip, and sides of the mouth are covered with brown glue-like crusts, and on the chin there is a patch of tubercles, sprouting like granulations, and covered only partially with crusts. The whole of both cheeks, and, indeed, the greater part of the face, has formerly been affected, but the disease here has undergone the healing process. The skin, however, is still of a reddish-brown colour, and covered here and there with thin scabs, and on the right cheek there is an unhealthy looking ulcer. The surface of the cheeks themselves does not look puckered, nor does the skin over them evidently present the characters of a cicatrix. But its real tendency to contract is sufficiently shown by the everted condition of the lower eyelids. The right lower eyelid, in particular, has what ought to be its free edge drawn downwards at least one third of an inch below the corresponding edge of the upper eyelid, and the exposed surface of conjunctiva appears to have partially assumed the characters of skin. The eyelashes are wanting. The state of the nose and mouth also shows how much

lupus tends to deform the features. The angles of the mouth are rounded, especially the left one, and the lips are greatly thickened. The tip of the nose has disappeared, and the nostrils are converted into rounded holes, which are partially obstructed by crusts.

I have described this model in so great detail because I believe it affords a typical example of what is, I believe, almost the extreme amount of destruction and deformity of the face that lupus is capable of causing. I fail to perceive any indication that the bones had been attacked by the disease in this case, as is stated in the former catalogue.

The following case is an exceptional, and perhaps a doubtful, one. I have already referred to it in the remarks upon lupus in general.

398. LUPUS? Model of the face of a woman affected with a disease which was believed to be lupus at the time when she came under observation. Almost the whole of the face is of a reddish-brown colour; this discoloration ceases abruptly with a definite festooned border upon the forehead and cheeks. The whole surface within this border is in part covered with skin of cicatricial origin; this is very marked on the left cheek, where dilated vessels can be seen ramifying, and the skin is distinctly puckered; and also on the forehead, where the affected part is much depressed below the level of the rest of the surface. The left lower eyelid is everted, exactly as in ordinary lupus, and the right upper eyelid is everted in a similar manner. The state of the nose, on the other hand, is entirely unlike anything that I have seen produced by lupus. It is flattened down, not by erosion of the skin and superficial tissues (as in the previous model), but by destruction of the septum and other supporting parts. Thus, the two nostrils have run together, and form a single irregular aperture, and the tip of the nose has fallen in. The condition of the mouth, again, is quite different from that caused by lupus in the cases that have come under my observation. The lips and angles of the mouth have been destroyed by ulceration, and the remains of the lips seem to have become adherent to the

gums, so that the teeth and tongue protrude from an irregular aperture. On the left side the mucous membrane of the mouth is still ulcerating. There is also on the forehead an irregular ulcer.

The patient was a woman, æt. 40, who died in the hospital in April, 1833, after having been an inmate for five or six years. She had been the wife of a naval officer, and had borne five children. She was believed not to have had syphilis, but the facts upon which this belief was based appear to have been chiefly that "her character in the ward was that of a well-conducted woman; indeed (the report goes on to say), her orderly and discreet behaviour was such as to discredit the reports that prevailed of her early habits having laid the foundation of her disease"!

On post-mortem examination a few scattered tubercles were found in the lungs, and the appendix vermiformis was ulcerated at its extremity. The skull was preserved, and is now in the museum. The frontal bone is not carious, as might be inferred from an expression in the former catalogue. The only morbid appearances shown by the bones are round the margins of the nasal and orbital apertures. The nasal is converted into a smooth oval orifice, the naturally sharp margins of the bones being rounded off, and the projections (such as the nasal spines of the superior maxillary bones) having disappeared. The central parts of the alveolar processes of the upper jaw have also undergone absorption, with the sockets of the teeth, and the bones are smooth and rounded. The sockets of the central teeth in the lower jaw were also beginning to be absorbed. The apertures of the orbits, again, are smooth, like that of the nose, but this appearance is produced rather by a growth of new bone than by absorption of the old bone. The lower borders are in fact provided with smooth everted rims of newly formed osseous tissue. The natural indications of the sutures between the malar and maxillary bones have also disappeared.

At the time of death the whole body was much wasted, and the lower extremities were drawn up and their muscles rigid. One eye had long been extinguished by the disease, and latterly the other had also been destroyed. The teeth had quite lost their enamel, and in the lower jaw they hung over the remains of the lip like "fragments of old mortar."

See Miscell. Insp. Book, iv, p. 1. Prep. of skull, 1087[48].

399. LUPUS (?). Model of the left hand and part of the forearm of a man, presenting an affection which has rather remarkable characters. The skin of the whole palm is reddened, and parts of it are covered with tubercular elevations.

This is especially the case over the hypothenar eminence, and on the thumb, towards its dorsal aspect. There are some warty growths, the presence of which is perhaps accidental. The skin of the ends of the fingers is rough, tuberculated, and of a darkish colour, no doubt from dirt: the nails also are blackened. The skin forming the web of the fingers towards the inner side of the hand looks stretched, and the fingers themselves are contracted. Above the wrist the skin for some distance is red and tuberculated, this condition ceasing rather abruptly along a convex border. Part of the surface within this border, however, is of a paler colour, and is distinctly cicatricial in character.

400. LUPUS. Model of the left forearm and hand of a man affected with a remarkable disease, which appears to be lupus, but which would hardly have been recognised as of that nature had it not been that the patient had well-marked lupus of the face. The hand is enormously enlarged, especially in its antero-posterior diameter. The fingers are depressed, and bent inwards upon the palm. The nails vary in appearance; that of the forefinger is very much elongated, with a striated surface; that of the ring finger is hooked round over the end of the finger, which appears to have lost one of its phalanges; while the middle finger appears to want both its terminal phalanges, and has no nail. The skin of the hand and fingers is of a bright crimson-red colour, and presents patches of ulceration here and there. The forearm is withered in its whole length from the elbow to the wrist, and the skin over it is cicatricial, shining, and puckered, and evidently very closely bound down to the structures beneath.

The patient, a man, æt. 67, came in under the care of Mr. Durham in January, 1868. He stated that he had had good health until seventeen years back, when an ulcer commenced in the left side of his nostril, and gradually spread so as to involve the skin of the nose, the lower part of the forehead, both cheeks, and the upper lip. From time to time he had attacks of erysipelas, and four years elapsed before the face healed. About twelve years ago the left hand became diseased. A lump formed over the styloid process of the ulna, which after a time broke and discharged matter. Ulceration then spread both up the forearm and downwards over the hand. The forearm has since got

well, but not the hand. At different times abscesses have formed on the fingers, through which portions of diseased bone have come away.

On admission the skin of the central part of the face was occupied by a flattened white cicatrix. The left hand was most curiously deformed, and greatly increased in thickness, and the skin over it was ulcerated in different parts, with sloughs of connective tissue and tendon appearing through the apertures. The fingers and thumb were flexed, some of them being much shortened. The skin of the forearm presented cicatrices like those upon the face.

The patient's general health was good.

A fortnight after his admission, Mr. Durham amputated the limb at the junction of the middle with the upper third of the arm.

He went out convalescent on February 27th.

401. Lupus (?). Model of the back of the left hand of a woman, presenting over the angle between the metacarpal bones of the thumb and forefinger several irregular ulcers. These have sharp-cut edges, and their floors seem mostly to be formed by purulent exudations of a yellow colour, through which red granulations here and there project. Near the wrist, and on the forefinger, there are a few scattered papules.

In the former catalogue it is said that the patient was a scrofulous subject.

SCLERODERMA vel SCLERIASIS.

This is an affection characterised by an overgrowth and condensation of the connective tissue of the skin and subjacent structures.

It occurs in two distinct forms; one of which may be termed diffused, the other circumscribed scleroderma.

Diffused scleroderma, a disease first described by Thirial under the name of sclérème des adultes, begins as an induration at some one part, generally the nape of the neck, and spreads over the body, face, and limbs. It very commonly spares the hands. The affected parts are often of a brown colour. They feel brawny and hard, and the skin can neither be pinched up into a fold nor moved upon the subjacent structures. The surface is generally of velvety smoothness, but in some parts it may be roughened from development of papilliform masses of epidermis, so that it looks exactly as if affected with ichthyosis.

The induration may subside after a time, the case terminating in complete recovery; or death may ensue, either from some complication or directly, by exhaustion, from the fixed state of the jaws and mouth preventing the patient from taking a due supply of food.

Circumscribed scleroderma, which is the affection originally described by Dr. Addison under the name of keloid—"Addison's keloid,"—may appear at any part of the cutaneous surface as a round or oval patch, which gradually enlarges to some extent, while at the same time other patches form at a distance from it. The affected part feels brawny and hard, as in the diffused form, but its colour is different, being whitish-yellow, very like that of a plate of ivory. Round each patch there is generally at first a pale pink halo, and after a time a brown discoloration. If no further changes take place, the induration always subsides after some months or a year or two; and the skin recovers its suppleness, being only slightly discoloured and mottled with white and brown.

This, however, is not always the course taken by the patches of circumscribed scleroderma. In one case that I saw the most superficial layer of more than one patch underwent necrosis, formed an eschar with a distinct line of demarcation, and at length became detached. The resulting ulcers healed, not by extension inwards from their edges, but by the development of skin over all parts of their surface at once. Evidently, therefore, the destruction of the skin must have been limited to its very surface; perhaps even some little processes of the rete were left between the bases of the papillæ.

So, again, when this form of scleroderma occurs in a child, the skin may ulcerate over the prominences of the bones; and the joints may under such circumstances become permanently fixed and the growth of the bones be arrested.

Both forms of scleroderma are much more often seen in women than in men. Of their causes nothing is known except that the diffused form has sometimes appeared to be due to exposure to cold.

As a rule scleroderma presents definitely the characters of one or the other of these forms; but cases have been published which appear to supply connecting links between them. The pathological anatomy of the diffused form has been studied by several observers. It may be said to consist in a condensation of all the tissues, by which the loose subcutaneous connective tissue acquires a texture resembling that of the deeper layer of the cutis, and this, again, is converted into a substance resembling the superficial layer. Thus the true skin appears to be very greatly thickened; and it may even become continuous as a closely felted texture with that of the

muscular fasciæ or with the periosteum. The fat-cells of the subcutaneous tissue are absorbed, as the spaces in which they lie become obliterated.

In the early stage of the disease an accumulation of lymph-cells in the perivascular spaces has been observed, and from these, perhaps, the new fibrous and elastic elements are developed. But the induration appears in part to depend upon a chemical or physical change in the elementary substance of which the tissues consist. This, perhaps, is not even confined to the connective tissues, for in the case from which the models 402-404 were taken the epidermis of certain ichthyotic parts creaked when scraped with a knife, and came away as a substance looking more like dirty sand than anything else; and after death the liver was crisp, making a noise when cut or torn to pieces. The connective tissue about this organ was decidedly tougher than natural.

It further appears doubtful whether the development of the closely felted texture above described can take place in all cases of scleroderma, and particularly in the circumscribed variety, in which (as I have stated) the induration invariably subsides in course of time. One can hardly suppose that such perfectly developed fibrous and elastic tissues are capable of undergoing absorption. Perhaps there may be some truth in the suggestion of Kaposi that the affection is at first due to a stagnation of lymph in the lymph spaces of the cutis.

DIFFUSED SCLERODERMA. Three models (402 to 404) from a patient affected with this disease in an extreme form.

402. This model shows the patient's back. The induration, of course, cannot be indicated, but the warm yellow-brown colour of the skin is displayed, and its peculiar smooth, shining surface.

403. This model shows the left arm of the same patient. The smooth appearance of the skin and its colour are well indicated, and in front of the elbow there is a raised band or ridge, just such as might occur in ichthyosis.

404. This model shows the right arm of the same patient, presenting similar appearances.

A. D—, æt. 63, under Dr. Fagge's care in 1869. For some months she had observed a stiffness of the back of her neck. This was at first

attributed to rheumatism. The stiff and hardened state of the skin gradually spread to the shoulders.

On admission she looked a much younger woman than she really was, this being probably due to the sleek, shining appearance of her face, which had none of the furrows of age, but was (on the contrary) smoother than natural, and presented a fulness usually seen only in quite young women. The integument of the cheeks and forehead was markedly indurated; it could not be pinched up into a fold. She was unable to open her mouth to its full extent. The skin of the eyelids, however, was nearly or quite as soft as natural. Her complexion was peculiar, but difficult to describe. The cheeks had some colour, but the face generally was of a yellow-brown hue—not sallow, but rather of a warm brown tint.

The induration was more extreme at the back of the neck, where it first began, than anywhere else. It reached down the back, as low as the loins, and had no definite limit in this direction. It passed forwards over the throat, across the clavicles, and down over the chest and abdomen, terminating about the umbilicus. It extended down the upper limbs to the wrists, gradually diminishing in degree. The lower extremities appeared to be entirely free from it.

The disease thus presented all the characters of a diffused scleroderma; but in front of each elbow there was a peculiar hard band, which differed from anything usually described in this disease. The bands on the two sides were nearly symmetrical, each lying over the corresponding supinator longus. The left one was the more developed of the two. When the elbow was extended this band became tight and prominent, looked very like a scar that might have been produced by injury, and felt as if there were a mass of hard material in the subcutaneous tissue, as well as in the skin. But when the joint was flexed it was found that the induration was seated wholly in the skin itself. The band was narrowed just opposite the elbow, and spread out above. Over its centre the cuticle was brown and roughened, and divided by cross furrows into little squares, just as is seen in ichthyosis; at the upper part of the band the surface was quite smooth, and had a yellow waxy look, very like that of the circumscribed form of scleroderma ("Addison's keloid").

The band over the right elbow was less developed; its cuticle, however, was also beginning to become affected in the manner above described, transverse striæ being plainly visible on its surface.

There were two other regions in which the cuticle presented an appearance similar to that seen in ichthyosis—at the nape of the neck, where there were two patches of the kind, one on either side of the median line; and in the axilla, just within the posterior fold.

She was positive that the band over the *left* elbow was set up by a scratch twelve months ago. She said that she was in the habit of rubbing the cuticle down with pumice, until it was on the same level as

the rest of the skin; but that it always grew again and became rough.

She said that she perspired very little.

She appeared perfectly well in all respects, with the exception of the scleroderma.

After a time it was noticed that the hands were affected on both their palmar and their dorsal surfaces.

This patient ultimately died of exhaustion, the skin over the jaws and mouth having become so tight that she could not take nourishment.

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 299; and the 'Path. Trans.,' vol. xx, p. 408, and xxii, p. 309. See also prep. 1621[55] of portions of the integument.

CIRCUMSCRIBED SCLERODERMA (KELOID of Addison). Three models (405 to 407) from a patient affected with this disease.

405. Model of the part of the back, presenting an early stage of the affection in the form of a large circular patch, five inches in diameter, of a whitish colour, with some spots of pale yellow, and marked towards the border by certain fine radiating lines. This patch is partially surrounded by an ill-defined red border or areola. There are many other whitish or yellowish spots, some not larger than swan-shot.

406. Model of the abdomen. It shows on the left side a raised sinuous line, extending from the margin of the ribs to the pubes. This line is about half an inch in breadth, of a dull yellow colour, and in some places slightly raised. In the groin is a similar patch, placed with its long axis transversely.

407. Model of the left arm and forearm of the same patient. It presents an irregular, dull yellow, slightly raised ridge, more or less cicatriform, and extending along the whole length of the outer side of the arm and forearm. The skin adjacent to it is paler than the rest of the cutaneous surface.

Eliza W—, æt. 19, presented herself as an out-patient at Guy's Hospital in June, 1853.

Her general health was good. She was seeking relief for pain and stiffness in the left arm and left leg.

The disease had first appeared twelve months previously, when a small white spot, about the size of a shilling, was observed on the

left side; but neither pain nor inconvenience resulted from it. About eleven weeks before she came to the hospital she first became sensible of pain, attended with a dragging sensation, in the left arm and left leg, and after this the disease made steady progress.

The limbs presented to the eye but slight indications of the disease, beyond a skin-bound, drawn appearance on extension; through the whole length, however, of both the arm and the leg a rigid band could be felt, which gave to the touch the impression of some inelastic substance tightly stretched beneath the integument.

The shoulders presented a mottled appearance, and had several whitish patches with red margins, interspersed with numerous small tubercular growths. There were several spots round the right nipple, and others were observed about the neck and breasts. The spot on the left side, where the disease had first presented itself, had attained the size of a five-shilling piece, and a band passed from it upwards towards the cartilages of the ribs, and downwards towards the pubes.

Two months later the pain in the arm and leg had much increased, with a feeling of shortening in the limbs affected; and, when she had been sitting for some time, it was with difficulty that the foot could be extended.

The band down the arm had become more distinct, and had assumed a slightly tendinous and glistening character. This band had now several lateral prolongations. A fresh spot had appeared on the upper lid of the left eye, and a second on the outer side of the right leg. Those on the shoulders had become more evident; the larger one had increased in size, and become yellowish in colour, glazed on its surface, and hard to the touch; and it did not move freely with the surrounding skin.

See drawing 158[52], and Dr. Addison's paper on keloid in the 'Med.-Chir. Trans.' for 1854, vol. xxxvii, p. 40, case iii.

408. CIRCUMSCRIBED SCLERODERMA (KELOID of Addison). Model of the right side of the chest of a girl, presenting numerous white spots, in size varying from that of a pea to that of a shilling. Most of them look not unlike the wheals of urticaria, and this resemblance is made more striking by the diffused redness of the skin between and around the spots. The largest but one of them, however, is distinctly raised above the surface, and is shining, and of a rather yellowish-white colour; and one or two of the smaller ones indicate an approach to the same characters. They were firm to the touch.

E. M—, æt. 18, came under Mr. Bryant's care in October, 1864. She stated that the affection on the chest had arisen from a blow given

her in play by her brother about two years before. A week afterwards (?) she observed the mark, which had been growing bigger since. She had no pain in it, and could bear to have it squeezed.

The spots on the chest did not grow bigger while the patient was under observation. Mr. Bryant afterwards learnt from her mother that the girl had died of phthisis. It was stated that the largest of the marks on the chest had rather decreased in size before her death; but that certain striæ on the legs had become more developed.

This model affords an excellent illustration of the early stage of this form of scleroderma. The case is also interesting because on other parts of the patient there were white striæ resembling those seen in "linear atrophy of the skin" (see models 340 to 347). It therefore tends to confirm the opinion, formerly expressed by Dr. Wilks, that the affections in question are related to one another.

CIRCUMSCRIBED SCLERODERMA (KELOID of Addison). Two models (409 and 410) from a patient affected with this disease.

409. Model of the right breast. Extending from above the nipple to the axilla is a curved depressed furrow, resembling a cicatrix, and having raised, dull red margins, presenting several tubercular elevations of a paler colour. Beyond the reddening the skin is of a dingy brown hue. The nipple is obliterated, and in the place of it is a curved fissure, with whitish tubercular margins; there is also red and brownish discoloration. The axilla has a like discoloured appearance. The affection was at one time supposed to be cancerous ulceration.

410. Model of the right arm of the same patient, presenting a patch of the disease on its outer side. The affected part is two inches long, and half an inch broad, and has a whitish, cicatricial, and slightly wrinkled appearance; a very faint red margin surrounds it.

Eliza K—, æt. 31, was a patient of Mr. Birkett's. She was a widow, and had had eight children. She had suckled them, and had enjoyed good health. She first noticed pain under the arm and a change in the skin of the part in December, 1850. She was suckling at the time. The right nipple was congenitally retracted, but the retraction had become more complete since the commencement of the disease. The skin of the affected part felt thick and parchment-like.

It was of a peculiar dull yellowish tint, resembling that of ivory. No axillary enlargement could be detected.

The patch on the arm first appeared in the summer of 1852. There was a third patch in the left axilla.

During the year 1853 the disease very slowly increased. In January, 1854, Mr. Birkett found that she was stout and appeared in good health, but complained of pain, sometimes very acute, in the part affected. The patch on the arm was also a little larger.

In March, 1854, she was much better.

In 1869, or 1870, she again came to the hospital to see Mr. Birkett. The deep scar-like furrow in the breast had in the mean time entirely disappeared, leaving the skin soft, supple, and perfectly healthy, or at most only slightly discoloured.

See drawing 158[56]; Dr. Addison's paper in the 'Med.-Chir. Trans.,' vol. xxxvii, p. 45; and Dr. Fagge's paper in the 'Guy's Hospital Reports,' 1870, series iii, vol. xv, p. 302.

CIRCUMSCRIBED SCLERODERMA (KELOID of Addison). Two models (411 and 412) from a patient affected with this disease.

411. Model of the right thigh, presenting a rather advanced stage of scleroderma. A raised brown line is seen, extending from the groin down to the knee in the direction of the sartorius muscle. In some places there are little tubercles of a darker colour, and at one or two spots the skin is slightly puckered. The brown line seems to form the axis of a broader white band, which on the anterior edge is tolerably well defined from the adjacent skin, but on the posterior edge fades gradually into it.

412. Model of the inner side of the popliteal space of the same limb. It may be seen that the affected part is here less raised above the rest of the surface than on the thigh. The white band is much broader in the ham, but below this it becomes narrower again. Both it and the brown line, however, extend to the lower end of the model, about the middle of the calf. The disease, indeed, extended still further downwards along the inner side of the leg.

L. B—, æt. 11, was a patient of Dr. Addison's in December, 1852. Attention had first been directed to the right thigh, about fourteen months before, on account of the child complaining of intense

itching there. Red spots, like flea-bites, were then observed; but there was no induration. After a fortnight flaky desquamation of the cuticle occurred, and soon afterwards the part gradually became hardened, and assumed the appearance displayed in the models. The left leg presented a similar patch over the front of the ankle and the internal malleolus, the integument seeming to be firmly fixed to the bone. The affection resembled the scar produced by a burn more nearly than anything else. It did not at all interfere with her walking. At the time of her admission there was no peculiar sensation in the diseased parts.

See drawing 158[46], and Dr. Addison's paper on keloid, 'Med.-Chir. Trans.,' xxxvii, p. 41, case iv.

CIRCUMSCRIBED SCLERODERMA (KELOID of Addison). Two models (413 and 414) from a patient affected with this disease.

413. Model of the left thigh, showing a large patch covering its anterior and outer surfaces. The model indicates the fact that the cuticle was more rough and inclined to form scales in this case than in most others of the same kind.

414. Model of the left leg of the same patient, showing another large patch of the disease, the upper part of which is also shown in the first model, extending round the leg below the knee, and binding down the skin like a very broad garter. The patches are generally of a creamy yellow colour, but they are in some places of a redder tint.

E. H—, a woman, æt. 56, was admitted into Clinical Ward, in November, 1866. The affection had commenced six months before, with sensations of itching in different parts. Soon afterwards the skin of the parts became reddened, and then the induration and whitish yellow colouration developed themselves. The scalp, neck, axilla, mammary regions, arms, forearms, back, and abdomen, were affected with patches of the scleroderma, as well as the thighs and legs. It was thought that sensation was somewhat impaired.

She left the hospital in February, 1867. Some improvement had taken place, and the skin was less brawny than it had been.

In November, 1867, Dr. Fagge visited her at Plumstead, where she lived. The induration had then disappeared from many of the parts affected by it a year earlier, and the skin of these regions had a brown colour. This was particularly the case with a broad band which had encircled the abdomen, and which was now represented only by isolated white spots. On the thigh, too, the skin, although discoloured over

a broad area, was but little thickened. The band below the knee still existed, and was white and depressed. Some of the white patches were still decidedly anæsthestic.
See the 'Guy's Hospital Reports,' series iii, vol. xiii, 1867, p. 276.

CIRCUMSCRIBED SCLERODERMA (KELOID of Addison). Two models (415 and 416) from a young girl affected with this disease in an extreme form.

415. Model of the abdomen, on the left side of which is an irregular patch of the disease, extending horizontally outwards from the scrobiculus cordis. It is partly of a brown colour, partly white and cicatricial, and it appears to have contracted greatly, the side of the body being hollowed to a considerable extent. Its anterior edge seems to be still spreading, a pale yellow discoloration extending beyond the brown part towards the healthy skin. Below the umbilicus is another patch of brown colour, and evidently of some standing; and spreading upwards and outwards from this is a more recent pale yellowish part, from which the cuticle seems to be slightly desquamating. Between the two patches the superficial veins are plainly visible over the left side of the abdomen. Scattered about the chest and also over the right hypochondrium are some smaller spots and patches, showing the earliest stage of this affection. They are of a pale yellow colour, and some of them are partially surrounded by faint pink areolæ.

416. Model of the right side of the trunk, shoulder, and elbow, of the same patient. The arm and forearm are seen to be very small in proportion to the size of the body. On the back of the shoulder there is an extensive patch of the disease, evidently of long standing; the skin is mottled with brown and grey discoloration; and a hard fibrous cicatricial band extends down towards the insertion of the deltoid. Over the lower part of this there is a rough white crust. The whole of the outer side of the arm is occupied by a continuation of the diseased patches, which appears to be of more recent origin. The skin here is in part white and ivory-like, in part of a pale brown colour. There has, however, already been much contraction, for the rounded contour of

the limb is destroyed, the affected part of the surface being much depressed below the level of the rest of the skin. The skin of the elbow and forearm is reddened from congestion of the minute blood-vessels. Just below the clavicle is a patch of the disease which has the whitish-yellow tint usually seen in its earliest stage.

E. A—, a shepherd's daughter from Ellersfield, in Hampshire, came under Dr. Addison's care in November, 1852, being then twelve years old.

On admission discolorations and scars, very similar to the cicatrices after burns, were observed on the chest and back and left leg. The disease was altogether more marked on the left than on the right side of the body. The movements of both shoulders were limited by the dense induration and contraction of the skin over them. The elbows and wrists and several of the fingers were also firmly fixed. There was much wasting of some of the muscles, and the hands were very small, like those of a child six or seven years old.

Dr. Webb, of Basingstoke, under whose care the child had been, related that the disease had begun when she was about seven years old. A white spot, about the size of a fourpenny piece, appeared on her left side, below the breast. Round it the skin was brownish, hard, and inelastic, over an area the size of a crown piece. The part looked as if the skin had been scorched with a hot iron. There was neither pain nor tenderness. Six months later, a similar spot appeared on the left shoulder. These patches gradually spread, fresh ones made their appearance, and the older ones in turn became contracted and puckered. Ulceration occurred at only one part, namely, between the right shoulder and the elbow, but this had healed before her admission.

In December, 1867, fifteen years later, Dr. Fagge sought out this patient, and took the following notes of her case:

"She still lives at Ellersfield, in Hampshire. She is now twenty-seven. She is a very healthy looking girl, so far as the appearance of her face is concerned; but one is at once struck, on looking at her, by the withered appearance of her upper limbs, which remind one forcibly of the small forepaws of a kangaroo. They are contracted and wasted. The shoulders are bound down, the deltoids being apparently destroyed; the elbows are bent at an acute angle; the hands are crumpled up. All the bones of the upper limbs are very much too small for a girl of her size; the hands, in particular, looking like those of a little girl. A band of the disease extends down the skin of the left upper arm, from the shoulder to the elbow, at a part which is expressly stated to have been healthy when she was in the hospital. The disease has now been quiescent for many years; indeed, I cannot learn that any fresh patches or spots have appeared since she left the hospital. Considerable

improvement must have taken place in the condition of the skin, even over many parts which are very much contracted. On the shoulders the integument is adherent to some extent, but a good deal of it which had evidently been diseased is now flexible, and merely discoloured. There are no remains of the "tubercular" elevations represented in the model. On the hands, again, the skin itself is everywhere soft and yielding, and but little discoloured. It is quite inconceivable that so much distortion and contraction of the hands and fingers should have occurred, unless the skin had at one time been much more severely affected. Her mother, however, states that the depth of the colour varies with the season, and that when the spring comes the girl's skin will be much browner.

"The face has always been free from the disease. The tongue is healthy.

"The mother states that the skin of the abdomen is now generally affected. The right lower limb has remained almost entirely free.

"The left lower limb is withered to the most extreme degree, and perfectly fixed, there being not the slightest mobility in it, below the hip-joint at any rate. The muscles of the calf have almost disappeared. The heel is drawn up, so that the foot is in a line with the leg. The foot itself is contracted, the toes being all distorted, and the great toe bent outwards, so that in walking she treads on what ought to be its inner edge.

"On the outer side of the thigh the skin still presents the characters of 'Addison's keloid,' or circumscribed scleroderma. It is thickened, hard, white, glistening, and incapable of being raised into a fold.

"Ulcerations have formed at various parts; the left heel, for instance, is now raw, and there has recently been extensive, but superficial, ulceration of the left thigh. She is in the habit of applying a little zinc ointment to the ulcerated spots, and under the use of this they heal.

"For a long time past, however, she has been regarded as a permanent cripple rather than as a patient. She cannot walk any very long distance. She can do scarcely anything with her upper limbs, being unable, for instance, to fasten her dress at the throat."

In August, 1873, Dr. Webb, of Basingstoke, reported that she was married, and a mother.

See drawing 158[25]; see also Dr. Addison's paper in the 'Med.-Chir. Trans.,' xxxvii, p. 43; and Dr. Fagge's paper in the 'Guy's Hospital Reports' for 1867, series iii, vol. xiii, pp. 267 and 327. This case is of especial interest as having been the first which was observed by Dr. Addison.

417. CIRCUMSCRIBED SCLERODERMA (KELOID of Addison). The model represents the left elbow, forearm, and back of the hand of a patient affected with this disease in an

unusual form. The surface of the skin is mottled, some parts being of a deep red colour, others pale. It presents numerous tubercular elevations, some of which are of the size of split peas, while others form irregular elongated masses; all these elevations are of a deep red colour, and the backs of the fingers, as well as other parts, are also reddened, without the skin being raised. On the back of the little finger is a nearly round ulcer, the size of a large pea. Several parts have the yellowish colour seen in other cases of scleroderma. Thus, a band of this colour extends down over the outer side of the elbow; and there are also yellow patches on the forearm, and on the back of the hand. There is a depressed white cicatrix over the posterior border of the ulna, looking as if a piece had been cut out of the skin, but having an indented border. Another well-marked cicatrix exists along the fifth metacarpal bone, close to one of the raised tubercular masses. Between the tubercles and other coloured patches the surface is pale, but there is no very decided whiteness of any part, such as is generally observed in circumscribed scleroderma.

J. M—, æt. 36, a labourer, from Derbyshire, was admitted under the care of Dr. Addison in October, 1854. Eighteen months before, he went to work one frosty morning at day-break, without his coat, and with his shirt-sleeves turned up. Very soon his arms began to feel very cold, and quite numbed. However, he put on his coat, and this feeling went off. A fortnight afterwards, he perceived that on the right arm the skin over the insertion of the deltoid, without being painful, was hard. Soon after, he observed the same appearance in the same situation on the other arm. It rapidly spread over both arms and shoulders, but still gave him no pain, and he went on performing his usual work. A few months later, his legs and feet began to be affected in the same way. His general health had not suffered much.

He did not improve while in the hospital, but in January, 1857, Mr. Dolman, of Derby (who had sent him to the hospital nearly three years before), wrote to tell Dr. Addison that he was much better, being able to do a good day's work at threshing or ploughing. The sores had healed, except one on the ring finger of the left hand. The skin elsewhere was not so tight, and the movements of the arms were free.

There are two full-length drawings of this patient (158^{58}, 158^{59}). One represents the front of the body, the other the back. It appears from them that the disease presented the ordinary characters of circumscribed scleroderma on all parts, except the left forearm and hand,

from which the model was taken. And it should be mentioned that a blister had been applied to the forearm, and that the report taken at the time states that this had in part caused the reddening of the integument in this locality. The back presents several large elongated patches with pale centres and brown irregular borders; and similar appearances are observed on the back of the neck, the shoulders, the right arm, the buttocks, and the legs. There is an ulcer over the olecranon on the left side.

See the 'Guy's Hospital Reports,' series iii, vol. xiii, p. 270.

418. SCLERODERMA? Model of the left hand and wrist of a patient affected with a disease presenting remarkable characters, but perhaps more nearly allied to scleroderma than to any other malady. The skin is reddened and has a shiny look, and presents no furrows. Along the junction of the palmar and dorsal surfaces of the forefinger there is a peculiar cicatriform appearance.

Mary J—, æt. 19, was admitted under the care of Dr. Pavy, February 4th, 1863. Nine months previously she had begun to feel pains in the limbs, especially in her hands, which became stiff, contracted, and swollen. She had difficulty in continuing to work, as her hands grew more contracted. She was a delicate girl. Her hands were semi-flexed. The fingers were enlarged. The skin felt dense and brawny, and appeared to be hypertrophied, so that there was a difficulty in closing the hands. Along the outer edges of the fingers there were cicatriform marks, and the skin there was red and furfuraceous. On each elbow there were red erythematous patches.

She gradually became so weak that she was obliged to keep her bed, and on March 13th she died, without any apparent cause. The post-mortem examination was made by Dr. Wilks. The most marked morbid appearance was in the bronchial glands, which were enlarged and caseous, with some calcareous deposit and intervening tough fibrous tissue. The lungs contained a few tubercles, but were otherwise healthy, except that they appeared very firm, being in a state very similar to that which is found in heart disease.

See Reports of Inspections, No. 67, 1863.

MORPHŒA.

This term as yet has no universally accepted meaning. Some writers have employed it as a synonym for the circumscribed form of scleroderma; especially one or two writers, who have held the opinion that this disease is allied to, or representative of, the leprosy which formerly existed in Great Britain, but which is now almost extinct. Such a view, however, I have elsewhere shown to be negatived by the sexual limitation of the former disease. I may incidentally observe that the opinion in question is unsupported by any direct evidence, and seems to be sufficiently negatived by the fact that leprosy is everywhere more common in men than women, whereas scleroderma is almost exclusively a disease of the female sex. Another use, which has for many years prevailed at Guy's Hospital, consists in its application to a remarkable affection, resembling circumscribed scleroderma in certain characters, but differing from it in being localised and confined to the distribution of the first division of the fifth nerve on one side. Now, as Mr. Hutchinson has pointed out, the patches of ordinary scleroderma do sometimes follow areas of nerve supply; but I am not aware that there is any one nerve that can be said to be frequently followed in its course by the development of that disease; and I therefore think that the affection just alluded to may fairly receive a special name.

MORPHŒA. Two models (419 and 420) from the same patient.

419. This model shows the patient's face, which presents a patch of a yellowish-white colour, extending upwards over the left side of the forehead, and encroaching slightly on the *right* side as well. It terminates a little behind the coronal suture. It varies in breadth from about three quarters of an inch to an inch. It passes down over the root of the nose, where it is in the median line, and it then inclines to the left, and terminates at the level of the tendo oculi. There is a small spot about the size of a pea, lower down, situated immediately where the nasal nerve escapes from under the bone. External to the principal patch on the forehead is another, which begins close to the first patch near the root of the nose, extends upwards, and terminates before it reaches

the coronal suture. It is connected with the first patch by a sort of bridge. Still further outwards, over the temporal fossa, is another small spot of the disease. The larger patches are raised above the surface, are of a yellowish colour in the centre, becoming more white towards the edge, and are each surrounded by a well-marked red areola. The furrows of the forehead are seen stretching continuously across them.

420. This model represents the face of the same patient three years later. It shows a great change in the disease. The principal patch on the forehead is no longer raised, and no longer presents the same colour. Its fundamental colour still seems to be whitish, but there are many spots on it of a rose tint, and some blood-vessels are visible over its surface. It is surrounded by a narrow brown border, of which the edge towards the patch is quite sharply defined, the outer edge shading off towards the healthy skin, which is itself, however, partly paler than the rest of the surface. The outer patch is now less sharply marked, but it is plainly indicated by a brownish border, of an irregular form, having in its interior a surface differing slightly in colour from that of the rest of the skin. It is doubtful whether any trace is left of the spot on the nose.

The patient was about fifty years of age, and was sent to the hospital by Mr. Toulmin, of Clapton. She had been married for some years, but had had no children. The disease had appeared about twelve months before the first model was taken. The first indication of it was that the hair over the affected part became snowy white; and subsequently it fell off. The affection commenced at the roots of the hair at the parting, as a spot similar to that which afterwards appeared on the side of the nose; this spot extended upwards and downwards, and six months after its first appearance a second spot appeared over the left eyebrow.

See Dr. Wilks' paper in the 'Guy's Hosp. Rep.' for 1859, series iii, vol. v, p. 156, and Dr. Fagge's paper in the 'Guy's Hosp. Rep.' for 1867, vol. xiii, p. 318.

421. MORPHŒA. This model represents the face of a child, æt. 8, presenting a linear patch on the left side of the forehead, in a very similar position to that shown in the last two models. This, at the root of the nose, is about a quarter of an inch wide; it becomes wider upon the forehead, and

terminates just within the edge of the scalp. On the forehead it passes slightly to the right of the median line. It extends downwards as far as just below the tip of the nose. The colour of the patch appears in the model to be a purplish-brown with a tinge of green. On the forehead it is much depressed below the level of the rest of the skin, and at the level of the eyebrow the depression is almost angular, as though a piece had been chiselled out.

E. P—, a girl, æt. 8, was under the care of Dr. Addison in December, 1855. She had always been delicate. Three years before, a small brown spot had appeared on the forehead; this afterwards spread, and acquired a silvery appearance, resembling that of the keloid of Addison (or circumscribed scleroderma). Afterwards it became depressed below the level of the rest of the skin, looking like a large scar after a wound.

See the 'Guy's Hospital Reports,' series iii, vol. xiii, 1867, p. 320.

422. MORPHŒA? Model of the face of a child, which presents, on the left side of the forehead, a raised yellow patch, of elliptical form, with its long axis vertical. It is in the main smooth and shiny, but is marked by some transverse furrows.

This child was brought to the Evelina Hospital and shown to Dr. Fagge, who directed the mother to take it to Mr. Towne. Unfortunately no notes were taken at the time, it being supposed that the case would remain under observation. But the child was never seen afterwards, and could not be traced. The affection was a very peculiar one, and Dr. Fagge felt exceedingly doubtful about its real nature, having never before seen any similar case.

LEPRA (ARABUM) VEL ELEPHANTIASIS GRÆCORUM;* TRUE LEPROSY; SPEDALSKED; COCO BEY.

This is a disease which occurs endemically in many parts of the world and which presents two well-marked varieties; these, however, being frequently associated together in the same patient. One of them, lepra tuberculosa, consists in the development of solid red or

* These epithets must not be supposed to mean that the disease when it occurred among the Greeks had a name different from that given to it when it affected the Arabians.

Their explanation is as follows:—The term elephantiasis was used by

brown tubercles, which may either coalesce or be isolated. They are seen especially upon the hands and face. At the same time there is much diffuse thickening of the integument, by which the features are rendered monstrous and deformed. Tubercles also form upon the mucous membranes of the palate, larynx, &c.

The other form of leprosy, lepra anæsthetica, presents an eruption of red or brown maculæ, the centres of which are usually devoid of sensation. Other parts of the skin become numb without any alteration in their appearance. Flaccid bullæ often form, especially upon the fingers, either spontaneously or as the result of slight injuries. The fingers become shortened. Paralysis of the muscles is often observed; the hands may assume a "griffin's claw" appearance, &c.

At the present time true leprosy prevails extensively in India,

the ancient Greek writers (Lucretius, Aretæus, Galen) to signify the disease now under consideration (true leprosy), which is an endemic, constitutional, fatal malady. But in the middle ages, especially in the thirteenth century, the writings of these Greek authors had become difficult of access or probably were lost. Accordingly, Latin translations were made of the works of certain Arabian writers (Serapion, Avicennes, Rhazes, Haly-Abbas, and others) who had themselves drawn largely from Greek sources of information. Now, one of the diseases mentioned by these Arabians was called by them dal fil, which literally means elephantine disease. The translators therefore termed this elephantiasis, but it is entirely distinct from the one which had before been known by that name, being a local affection, confined especially to the lower limbs, and attended with great enlargement. It therefore became necessary to distinguish between the two meanings of the word elephantiasis, and this was done by terming the one affection E. Græcorum, the other E. Arabum. On the other hand, the translators of the Arabian writers adopted the word lepra for the severe constitutional disease, and this led to additional confusion, for the ancient Greek writers had used lepra for a harmless scaly affection, the same which is now called psoriasis. Hence it became necessary to distinguish likewise a L. Græcorum from a L. Arabum. The meanings of these several terms will, perhaps, best appear from the following tabular arrangement:

Ancient Greek writers.		Translators of Arabian writers.		Modern writers.
Lepra Græcorum	=	——	=	Psoriasis.
Elephantiasis Græcorum	=	Lepra Arabum	=	True leprosy. Aussatz (German). Spedalsked (Norwegian).
——	=	Elephantiasis Arabum	=	Elephantiasis. Elephas. Pachydermia. Bucnemia. Barbadoes leg.

China, Japan, at the Cape, in the West Indies, and in Brazil. The European country in which it affects the largest part of the population is Norway, especially along its western coast. It also occurs in Portugal, Greece, and Russia. In Great Britain it is generally said to be extinct, but the following models supply clear proof that it occasionally appears in persons who have never been abroad.

Its cause is as yet unknown. It is not contagious, but is transmitted by inheritance. It often does not break out until after the patient has left a country in which it was endemic.

Histologically the tuberculous form consists in the growth of a granulation tissue, extending from almost the very surface of the derma deeply into the subcutaneous tissues. The elements are at first round, but many subsequently undergo development into stellate and spindle-formed cells. In the anæsthetic form there is a similar growth in the nerves, occupying the perineurium and the connective tissue between the bundles of nerve-fibres, and leading to a complete atrophy of these fibres (Virchow). Dr. Moxon has shown that the walls of the veins may also become the seat of nodules formed of the same granulation tissue.

423. LEPRA TUBERCULOSA. This model represents the face of a man, the skin of which is greatly thickened and tuberculated, and of a dull brown colour.

The patient was a young man, æt. 20, who had been in the West Indies. The legs and toes were also affected. The hair had fallen from the scalp and body generally. He appeared to die from exhaustion consequent on diarrhœa. On inspection no visceral disease was detected beyond irritation of the mucous membrane.

LEPRA TUBERCULOSA. Four models (424 to 427) representing various parts of the cutaneous surface of a man affected with true leprosy.

424. This is a model of the face, presenting on the cheeks and forehead large raised, dull red elevations, with lighter coloured, irregularly depressed centres; small commencing tubercles are observed on the eyebrows; on the left temple are several large elevations which are seen to be spreading and uniting one with another, so as to isolate a portion of healthy skin.

425. This model represents the flexor surface of the right forearm of the same patient, on which are several patches of a dull

red colour, with minute, deep coloured papular elevations; the centre of the patches is paler. The patches are specially described in the former catalogue as having been hard.

426. This model represents the outer side of the right buttock, &c., presenting large annulated patches, very similar to those on the arm.

427. This is a model of the inner surface of the left leg of the same patient, presenting tubercles and large patches like those on other parts of the body. On the heel two elevated, hard, isolated tubercles may be seen; they were hard to the touch; this is how the affection commenced.

The patient was about fifty years of age, and had resided for eighteen years in Jamaica. The disease had commenced on the face; there was no loss of sensibility in the affected parts; the voice became slightly hoarse while he was under observation.

428. LEPRA TUBERCULOSA. This model was taken from the left arm of a boy, on which were numerous tubercles of a dull red colour, varying in size from a pin's head to a pea. The skin generally was congested. Above the wrist, on the forearm, and at the elbow, several brown discoloured patches may be seen.

The boy was a patient of Dr. Addison. There was no loss of sensibility nor alteration of voice.

LEPRA TUBERCULOSA et ANÆSTHETICA. Three models (429 to 431) showing different parts of the cutaneous surface of a patient affected with true leprosy.

429. This model represents the face, which looks horribly bloated and disfigured from the thickening of the integument, and is furrowed with deep wrinkles. The eyelids and eyebrows are swollen. The alæ of the nose are greatly enlarged and covered with tubercular elevations, small whitish scales, and thin blood-crusts. The lips are enormously thickened.

The hairs of the eyebrows and eyelashes were beginning to fall off.

430. This is a model of the back of the right forearm and hand of the

same patient. The forearm is covered with numerous dark spots, many of them having cicatriform depressions in their centres, and apparently marking the sites where tubercles formerly existed. The skin of the hand and wrist has a livid glossy appearance, and presents some papular elevations. There is also a slight tendency to desquamation.

431. This is a model of the left foot of the same patient. It is greatly enlarged (from œdema), and the skin is of a dark brown colour, presenting some papules, and being scaly, especially on the toes.

The patient, J. H—, a native of Kingston, Jamaica, was in Job Ward in the year 1858, under Dr. Gull. He was born of European parents. For twenty-six years he served as a blacksmith in the navy, living on board ship, and principally on tropical stations. He had had robust health until attacked by the leprosy, sixteen months previously. The first symptom was said to have been œdema of the lower limbs, followed by an eruption of small red tubercles, which soon began to ulcerate. He had then intercurrent attacks of erysipelas. There was complete anæsthesia of the skin of the head and face, and also of the wrists, hands, legs, ankles, and feet. Sensation was perfect over the whole trunk, and also over the ears, neck, arms, and thighs. The palate and fauces were affected. Sexual desire was lost. None of his relations had been affected with leprosy.

He remained in the hospital ten months, but the disease progressed slowly, in spite of treatment. Several crops of tubercles came out on the legs and arms, and gradually disappeared again, leaving reddish spots or whitish cicatrices. The degree of anæsthesia varied from day to day.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. v, p. 147.

LEPRA TUBERCULOSA et ANÆSTHETICA. Three models (432 to 434) taken from a patient affected with this disease.

432. This model represents the gluteal regions. The skin may be seen to present a diffused thickening and brown discoloration, with several depressions or pits, about a quarter to half an inch in diameter, and of a paler colour.

433. This model was taken from the left foot of the same patient on the outer side of which numerous brown elevated tubercles may be seen.

434. This model is from the left hand of the same patient. The fingers are shortened and contracted; and there is a general scaly state of the surface of the skin.

The patient was a man, named Francis R—, who at the time of his death was thirty-six years of age. He was born at St. Martin's, Jamaica, of creole parents. At twenty-six years of age he had numbness of the left hand and of the feet, and soon afterwards contraction of the left fingers. When thirty-three years of age, he had superficial ulceration of the fingers, and, three years later, scaliness of the hand, with itching. On the foot were several brown raised tubercles.

The skin of the buttocks is said to have been completely anæsthetic; no mention is made as to the state of sensation in other parts.

See the "second Note Book;" also Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. v, page 155. The models were not taken directly from the patient, who died in the Kingston Hospital, Jamaica; but from casts which had been sent to England, aided by a detailed description furnished by Dr. Bancroft.

LEPRA TUBERCULOSA et (?) ANÆSTHETICA. Four models (435 to 438) representing the face and different parts of the limbs of a man affected with this disease, who had never been out of the British Islands.

435. This model shows the patient's face, the skin of which is universally thick and tuberculated, and of a dull red colour. The alæ of the nose and the lips are much thickened.

436. This model was taken from the right hand of the same patient; it shows the general thickening of the skin, the discoloration, and the slight scaliness along the folds of the integument.

437. This model represents the right elbow and forearm of the same patient, on which are seen numerous dark red tubercles, most of which are surrounded by zones of brown discoloration. The rest of the surface is also covered with a fine papular eruption.

438. This model shows the left foot of the same patient, presenting great thickening of the whole skin, discoloration of the toes, and scales in the furrows of the skin.

The patient, Dennis M—, æt. 28, was admitted under Dr. Addison, in 1852, presenting a frightful appearance from swelling of the features,

large folds of thickened skin overhanging the eyes, and similar masses nearly meeting them from the cheeks. He said he was a native of Cork, had left Ireland twelve years before, and had since worked as a tailor in London and at Croydon.

The first symptom of his disorder was a pricking sensation in the arms and face. A year later an eruption of lumps and blotches appeared on his face and on other parts. The hands and feet became swollen and indurated. In addition to the characters of the cutaneous affection, which are sufficiently displayed by the models, it may be stated that sensation in the face and on the backs of the hands was impaired, but by no means completely lost. The trunk was nearly free from the disease. The tongue was thickened and nodulated, and the palate and uvula were white and granular.

After a time ulceration began in some of the affected parts. His voice became hoarse, and at times there was aphonia. On the 24th of May, 1853, after going out of doors as usual, he was seized with dyspnœa and symptoms of laryngeal obstruction, and died the same evening.

The chief morbid appearances found on post-mortem examination were thickening and ulceration of the larynx and trachea.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. v, p. 151, where the case is reported by Dr. Gull.

It should be added that Dr. Addison designated the disease in this case "elephantiasis spuria," as he believed that true leprosy is extinct in the British Islands, but a comparison of the models with those which precede them, and particularly with models 429 to 431, will show, I think, that the malady is the same in them all.

See also drawings 194[55] to 194[63].

LEPRA ANÆSTHETICA. Two models (439 and 440) showing the left hand of a patient affected with this form of disease.

439. This model shows the palmar surface of the hand and fingers. The skin of the palm may be seen to be contracted. On the fore and middle fingers are two bullæ, containing blood-stained fluid, one of which has burst. Remains of some smaller blebs may be seen on the hand.

440. This model shows the back of the same hand, on which are several small bullæ, as well as an ulcer and scars left by others which had healed.

The patient, a gentleman, æt. 37, was under the care of Dr. Gull, in June, 1856. Several years (? ten years) before, he had been resident in

Trinidad. For four years, before Dr. Gull saw him, a loss of feeling had been coming on in the hands, until at last it reached as high as the elbows. The lower limbs had also become affected up to the middle of the thighs. During the last year the fingers had become contracted, and bullæ had formed over the affected parts. They rose rapidly, and either burst or were ruptured by violence, leaving superficial ulcerations. The legs were œdematous. Walking was much interfered with by the loss of sensation in the feet. The use of the hands was almost lost.

See Dr. Wilks' paper in the 'Guy's Hospital Reports,' series iii, vol. v, p. 146.

LEPRA ANÆSTHETICA. Three models (441 to 443) representing the forearms and hands of a patient affected with this disease.

441. This model is from the back of the left hand and forearm. The skin was of a reddish-brown colour, and it was much firmer and thicker than natural; the discoloration extended half way up the forearm. On the wrist there are one or two tubercles, of a darker hue.

442. This model shows the palm of the same hand and the front of the forearm. The skin appears to be even more altered than on the back, being very dark and mottled.

443. This model shows the radial side of the right forearm. It presents several scattered brown maculæ, apparently a little raised above the rest of the surface.

The patient was under the care of Dr. Gull in the year 1862. She was born in Barbadoes, and had been in England only a few months before her admission, at which time she was thirty-five years old. Seventeen years back, when in Demerara, she had one or two specks of a light brown colour on her skin; these spread over both arms, but afterwards disappeared. Subsequently she found that there was loss of sensation in the back of the left hand and forearm. Two years ago the hand became discoloured and swollen, and afterwards the legs, shoulders, neck, and face.

Besides the affection of the arms and hands (which is illustrated by the models) it may be noted that the skin of the face was thickened and discoloured. On the chest and back there were large brown patches. There was some anæsthesia. She was liable to uncomfortable sensations, as if something were creeping under the skin.

She died in the hospital, of erysipelas and typhus fever.

See the 'Medical Times and Gazette' for 1862, vol. ii, p. 545.

444. LEPRA ANÆSTHETICA. This model shows the palm of the left hand and fingers of a patient affected with this disease. The skin is of a reddish-blue colour; it is apparently thickened and contracted, especially towards the ulnar side, and there is a slight tendency to desquamation along the flexures. There also is much muscular atrophy. The thumb and fingers are flexed, so as to give to the hand the "griffin's claws" appearance.

E. G—, æt. 24, was under Dr. Wilks' care in 1859. He had been a Government clerk at Trinidad. When about thirteen years old he had begun to experience uneasy sensations, like "pins and needles," in his limbs; two years later his left arm and right foot became swollen, they changed colour, and ceased to perspire like the rest of the body. The complaint advanced and affected other parts.

The arm was enlarged, and of a bluish colour; the ears were enlarged, indurated, and of a slaty hue. The hands were swollen, and looked very much as if they had been frost-bitten; they were quite anæsthetic, so that there was an ulcer on one of the fingers which had been caused by a burn from his placing the hand too near the fire. On the forearms there were scattered patches of discoloration. The feet were more severely affected than the hands, and the cuticle was exfoliating in powdery scales. Nearly the whole surface of the lower limbs was discoloured and anæsthetic, except here and there a few patches of healthy sensitive skin. The gluteal regions were brown, indurated, and devoid of sensation. The front of the chest had a large brown patch, looking as if it had been painted with tincture of iodine, and perfectly anæsthetic.

See drawing (of foot) 194[65]. See also Dr. Wilks' paper, 'Guy's Hosp. Rep.,' ser. iii, vol. v, p. 144.

445. LEPRA ANÆSTHETICA. Model of the back of the right hand of a woman affected with this disease. The skin of the fingers is shining; several of the nails are being shed. The remains of a bleb appear to be visible on the forefinger.

The woman was a patient of Mr. Bryant's. Her fingers were atrophied, and the skin over them was hard and fixed.

LEPRA ANÆSTHETICA.? Two models (446 and 447) representing the hands of an Irish woman, who had never been out of the British Islands, affected with a disease which, if not leprosy, closely resembled it.

446. This model represents the dorsum of the left hand. The skin is seen to be of a brown colour. The forefinger is reduced to a stump at the first phalangeal joint; the second finger has apparently lost its last phalanx. There are recent bullæ on the thumb and over the knuckle corresponding with the forefinger.

447. This model represents the palm of the right hand of the same patient. There are two flaccid bullæ just above the root of the forefinger; another on the palmar surface of the last phalanx of the thumb; and two others at the tips of the third and fourth fingers severally. They have all given way and their roofs have fallen in, and become partially detached. The skin over the thenar and hypothenar eminences looks flattened, as though the muscles beneath were wasted. The forefinger is markedly shrivelled and contracted. The nails of the ring and little fingers are brown and fibrous-looking.

The patient was an Irish woman, æt. 54, under the care of Dr. Rees in 1866. She lived in Limehouse, and had been in England thirty years, having left Ireland when twenty-four years old. She had been a widow twenty years, and had generally been badly off for food. Nine months ago she first noticed blisters forming on her hands and feet; these broke and left sluggish sores. One of them, on the left index finger, broke and formed an ulcer, which kept eating away the finger until a surgeon amputated it. About five weeks ago large patches appeared on different parts of the body.

She was very weak. The body and limbs were stained with large brown patches, many of them circular, and gradually fading towards their centres. There was much anæsthesia. Her lips were very thick and puffy; her nose round and flat, with thickened alæ; her cheeks swollen, especially just below the orbits.

See Dr. Rees' paper in the 'Guy's Hosp. Rep.,' series iii, vol. xiii, p. 190.

ELEPHANTIASIS (ARABUM*) VEL ELEPHAS; BUCNEMIA; PACHYDERMIA; BARBADOES LEG.

This disease affects the subcutaneous and even the deeper structures, at least as much as the skin. It is chiefly apt to occur in one of the lower extremities or in the scrotum. It is attended with

* For the meaning of this epithet see footnote to p. 205.

enormous enlargement. The surface of the affected part may be either smooth or warty. The subcutaneous connective tissue is greatly thickened, partly by an overgrowth of its constituent fibres, partly by an infiltration with fluid.

Elephantiasis occurs in all parts of the world, including the British Islands; but it is particularly frequent in the West Indies, Brazil, Japan, &c. It sometimes attacks those who are also affected with leprosy; but this appears to be accidental.

448. ELEPHANTIASIS (ARABUM). Model of the left leg and foot of a negro, which are greatly enlarged by thickening of the subcutaneous tissue, as is well shown in the cut surface at the upper part of the model. The skin of the instep and back of the foot is thrown into massive folds. On the great and second toes there are large raised prominences of skin, beneath which the ends of the toes themselves are just visible. The three smaller toes are natural. In front of the leg is a chronic ulcer.

449. ELEPHANTIASIS (ARABUM). Model of the right leg and foot of a female patient. All parts, except the toes, are enormously swollen, and thrown into monstrous folds. The skin of the front of the leg is mottled with brown, and mammillated, the little projections from its surface being of a white colour, contrasting markedly with the brown.

The patient, æt. 60, was the widow of an officer who had resided for many years in the West Indies. She was a patient of Dr. Young's, of Kennington. She died of dropsy about a year after the model was made.

450. ELEPHANTIASIS (ARABUM).—Model of the right lower limb of a woman, from the knee to the foot. The leg measures about thirty inches in circumference, and presents enormous outgrowths, separated by deep furrows, and themselves divided into minor lobes by shallower grooves. On the front of the anterior outgrowth the skin is inflamed, over a considerable surface. Most of this is covered by brownish scales, forming peculiar-looking quadrilateral plates, but a part of it is superficially ulcerated and covered with granulations. At the periphery there is slight desquamation of the cuticle; and

to the inner side there is a peculiar unevenness of the surface, which shows that the skin had been subjected to great stretching. The dorsum of the foot presents another large rounded swelling which has an erythematous blush upon its surface. The toes are unaffected by the disease.

ELEPHANTIASIS (ARABUM).—Two models (451 and 452) from a patient affected with elephantiasis of the right foot.

451. This model shows the inner side of the ankle and the plantar surface of the foot. The affection is seen to begin abruptly a little above the ankle, and it terminates in front near the base of the metacarpal bone of the great toe. It forms an uneven flattened swelling, which spreads backwards, so that the position of the heel cannot be recognised. It also extends beneath the skin of the sole nearly to the lesser toes. The surface is wrinkled. The skin over about half of this part is thick and horny, showing that it was originally the covering of the sole of the foot. Above this there is much brown pigment.

452. This model shows a section of the outer side of the foot made after amputation. Beneath the skin is a semi-gelatinous-looking layer, which in some places is more than half an inch thick, but the great mass of the disease appears to be made up of fat. There is considerable distortion of the bones, the foot being curved as in talipes equino-varus.

Sarah B—, æt. 24, was admitted into Dorcas Ward under Mr. Hilton on Sept. 10th, 1856. She was a single woman, living at Lewisham. She said that from her earliest recollection she had had a small tumour on the right ankle. This remained stationary until six months before her admission, when she struck it, upon which it began to swell.

The leg was amputated on Sept. 30th. She died of pyæmia on Oct. 4th.

Dr. Wilks examined the part after removal, and reports that the growth sprang almost entirely from the sole of the foot. From the point of the os calcis strong fibrous bands, connected with the plantar fascia, spread out like a fan through the tumour, and passed to the skin. The intervening substance was simply fat. At the upper part of the tumour, however, there was a dense "fibro-cellular" layer, such as is seen in elephas. The skin itself was also much hypertrophied and

the cuticle thickened. The surrounding parts were involved in the disease, being converted into a tough, white "fibro-cellular" tissue. Thus the tendo Achillis and its insertion into the bone had almost disappeared, and the flexor tendons of the foot were lost. The muscles of the foot could, in part, be distinguished by their pink colour. The arteries and nerves were normal, but all the veins seemed slightly thickened.

See Report of Inspections, 193, 1856.
Drawing 196^{20}. Prep. 1621^{40}.

453. CHRONIC THICKENING OF THE INTEGUMENTS.—Model of the right hand of a man showing a remarkable thickening of the cutis of the palm and fingers, and apparently of the subcutaneous tissues likewise. Thus the thumb and all the fingers are enormously enlarged at their extremities, with the exception of the middle finger, which is contracted and bent inwards upon the palm. The cushions of the thumb and little finger also present large nodular elevations. The skin of the forearm is in a natural state.

No record of this case has been preserved beyond the fact that the affected parts felt soft, like the ordinary cushions of the fingers. The appearances in one or two places suggested the presence of gouty deposits, but this was not satisfactorily made out.

KELOID.*

This affection was first described by Alibert. It consists in the growth of one or more round or oval tumours on some part of the cutaneous surface; these commonly send out fibrous bands into the

* In the former catalogue this affection was designated the *Keloid of Alibert*, to distinguish it from another disease, which was called the *Keloid of Addison*. But, as I have already shown, the latter is a form of scleroderma. It unfortunately happened that Addison, following Dieburg, supposed the word keloid to have been derived from κηλίς (the scar left by a burn); and since in his first case of scleroderma there was much puckering, and the affection closely resembled an extensive scarring from injury, he appropriated to it the name of keloid. All observers, however, are now agreed that this was a mistake; and, to avoid confusion, I have adopted the nomenclature which is universally employed by dermatologists abroad as well as in this country.

skin around, which Alibert compared to the claws of a crab; hence, he invented the name cheloid (χηλή, a crab's claw), which he subsequently changed to keloid. A keloid tumour rises boldly above the surface; it feels hard and elastic; it is generally smooth and shining; it may be either white, or pink, or of a bright red colour.

Two forms of keloid were recognised by Alibert, and have been admitted by most subsequent writers. In one (which Alibert termed true keloid) the tumour arises at a part where the skin was previously healthy; this form of the affection is scarcely ever seen except on the chest, or on the upper part of the back or shoulders. The same patient seldom presents more than one or two tumours. The other form (which Alibert called false keloid, and which is now generally called cicatricial keloid) is developed upon the site of a pre-existing cicatrix. This also is very common upon the chest and back, but it sometimes occurs upon the limbs; and a large number of separate tumours may be present in the same case.

Histologically, a keloid tumour consists of a well-defined oval mass of closely felted fibres, with a varying proportion of round and spindle cells, imbedded in the substance of the true skin. The only difference between the true and the cicatricial keloid is in the state of the skin which covers the growth. This is quite normal in the one, but in the other a greater or less extent of it presents the characters of a scar; that is, it has no papillæ, the cuticle resting directly upon the cicatricial tissue.

Further, it is necessary that a cicatricial keloid tumour should be distinguished from a mere hypertrophied scar. This may be considerably raised and of a red colour; but in it the fibrous tissue simply forms an irregular network, which forms bands or cords passing in all directions into the adjacent healthy cutis.

Keloid tumours are sometimes very painful, and when excised they are apt to return again and again, and gradually to assume malignant characters, passing probably into sarcomata. But when left alone they not unfrequently slowly disappear. This appears to be most commonly the case with the cicatricial form of the affection. Some histologists have assumed that keloid tumours which take this course consist entirely of embryonic tissues, their spindle-cells not having undergone development into fibres; but I am not sure that this must necessarily be the case.

KELOID. Two models (454 and 455) from a patient affected with this disease.

454. Model of a part of the chest of a man, presenting two large

tumours. One of them is somewhat larger than the other, measuring nearly two inches in diameter, and elevated about half an inch above the surface; the central portion of each is smooth and shining, and presents minute vessels passing inwards; the margin is livid and irregularly wrinkled, and this again is surrounded by dingy discoloration of the skin, extending for two or three inches beyond the tumour. Below the principal growths two smaller ones are observed, of a livid red colour.

455. Model of a portion of tumour from the same patient. It shows the appearance of a section of the growth, which consisted of a mass of dense fibrous tissue embedded in the corium.

W. G—, æt. 33, first came to Mr. Whately, of Berkhampstead, about May, 1851, with a single, exquisitely tender, red tumour on the left side of the chest. About a month later a second tumour was visible. Soon after this he came to Guy's Hospital at the request of Mr. Bransby Cooper, and model 454 was taken. After a time he returned into the country. The tumours continued to grow, and coalesced into a single mass. Mr. Whately removed this in May, 1852. Two years later there had been no return of the disease.

See drawings 158[54], 158[57], and Dr. Addison's paper on keloid in the 'Med.-Chir. Trans.' for 1854, vol. xxxvii, p. 34.

456. KELOID. Model of the anterior thoracic region of a young woman, presenting a single tumour, about an inch and a half in diameter, and raised nearly a quarter of an inch above the surrounding skin; its surface is shining, and presents numerous capillary vessels; on its right side the skin is wrinkled; the tumour is surrounded by brown discoloration.

The tumour was removed by Mr. Cock, on account of the pain which it occasioned.

See drawing 158[53].

KELOID. Two models (457 and 458) from a patient affected with this disease.

457. Model of the chest of a male patient, showing a patch of keloid nearly as large as the palm of one's hand. This is raised above the rest of the skin, but has a flattened surface, which is of a pale colour streaked with red. There is marked

injection of some of the smaller vessels, which are plainly visible through the thin shining cuticle which covers the tumour. Its borders are puckered, and send prolongations into the skin around; one of them in particular is more than two inches long, and ascends over the left collar-bone.

458. Model of the right elbow and forearm of the same patient, presenting a remarkable affection. This begins above on the outer half of the biceps muscle, and extends downwards on the outer part of the front of the forearm, terminating a little above the wrist. It consists of elevations, which may be termed hard, flat papules, running together to form ill-defined and irregular patches. The ground of these is of a mottled red colour, but the papules themselves are paler, being of about the same tint as the healthy part of the skin.

459. KELOID? Model of a portion of the back of a young healthy looking woman, presenting several prominent tumours, which were believed to be carcinomatous. One of these was removed by Mr. Key, but the disease returned. They vary from a quarter of an inch to two inches in diameter.

The tumours were of slow growth.

460. KELOID (CICATRICIAL). Model of the left side of the shoulder and back of a young woman, showing two raised, red, shining tumours.

R. J—, æt. 16, was under Mr. Hilton's care in 1855. She was a highly strumous girl. She said that two years previously several boils had made their appearance on the nape of the neck and upper part of the back. They all went away except two, which remained as hard red lumps, the size of peas. These gradually increased in size, and there was a darting, pricking pain in them. A year back they were excised by Mr. Coulson. Soon afterwards they grew again. On July 3rd Mr. Hilton removed them, and they were examined microscopically by Mr. Quekett, who found that they consisted of fibrous tissue, with numerous branches of nerves. On August 14th it was observed that the cicatrix on the shoulder was already showing indications of recurrence of the growth. Soon afterwards she left the hospital.

See drawing 158[62].

KELOID (? CICATRICIAL). Two models (461 and 462) from a patient affected with this disease.

461. Model of one side of the chest, including the breast, upon which are two tumours of keloid, red, raised, and wrinkled; there are also numerous smaller tubercles, with whitish summits.

462. Model of the other breast of the same patient, showing several similar growths.

S. B—, æt. 18, an hysterical girl, was under the care of Dr. Addison in the year 1853. She was marked with smallpox, which she had had in early childhood. The keloid tumours had first appeared in the form of small red pimples about eleven weeks before her admission. She complained of a dull aching in them, converted by pressure into a more acute pricking pain.

See drawing 158[50], and Dr. Addison's paper in the 'Med.-Chir. Trans.,' vol. xxxvii, p. 31.

KELOID (CICATRICIAL). Two models (463 and 464) from a case in which this affection was developed in the scars left by an ECTHYMATOUS SYPHILODERMA.

463. This model shows the right arm and part of the shoulder, covered with ecthyma in various stages. Some of the crusts have apparently been recently formed; others have fallen off, leaving red surfaces, beneath which the keloid growth is plainly manifesting itself; indeed, it is already puckering the skin around.

464. This model shows the left arm of the same patient, about eighteen months later. All indications of the original disease have now disappeared. The arm presents numerous raised, red, shining tumours, from a quarter of an inch to an inch and a half in diameter.

W. C—, æt. 22, was admitted into Samaritan Ward under Mr. Birkett in December, 1868, for syphilis (constitutional). The first model was taken about this time.

The second model was taken in July, 1860. The keloid tumours, which had originally existed only on the arm, were now present on the legs; there were also one or two on the chest and on the neck. They were not painful unless they were squeezed hard. Fresh ones were

still growing. He remained ill and cachectic; he had ulcers on the pharynx, and had lost his palate.

See the 'Guy's Hospital Reports,' series iii, vol. v, p. 158, and vol. vii, p. 309.

465. KELOID (? CICATRICIAL). Model of the face of a child affected with keloid. On the right cheek there is a raised, red, puckered swelling. Below the jaw on the left side is a mass of suppurating glands, which has been incised. On the bridge of the nose is a spot of irregular ulceration, presenting no very definite characters.

The patient, a boy, æt. 6, was under Mr. Birkett's care in October, 1865. No notes of the case appear to have been preserved, beyond the fact that "he had had the disease as long as he could remember."

466. HYPERTROPHIED CICATRIX after SUPPURATING BUBO, with development of large bands of fibrous tissue. This model shows the right groin and thigh, over a large part of which the skin had been destroyed by ulceration, which has recently healed. It illustrates the fact that in the cicatrization of wounds a large quantity of fibrous tissue is often developed without there being necessarily anything that can be called a tumour, or that can fairly receive the name of keloid.

? CICATRICIAL KELOID and PEMPHIGUS, occurring in infancy. Three models (467 to 469) from an infant, showing a remarkable affection, to which it would be difficult to give a definite name.

467. Model of the right lower limb, on the outer side of which may be seen two large roundish patches, which, it was thought, resembled somewhat those seen in cases of leprosy. They are of a reddish-brown colour, and the cuticle is desquamating slightly. To the inner side of the instep is a raised inflamed patch, looking as if a bleb were about to form there.

468 Model of the right upper limb. On the forearm, just below the external condyle, is a round patch, of about the same size as those on the leg, but with a pale centre. On the first phalanx of the fourth finger is a large purple bleb.

469. Model of the face of the same child, on which are several solid red elevations, more or less puckered, and resembling more or less closely the keloid tumours which occasionally form in cicatrices.

The patient was a well-nourished infant, æt. 12 months, under Mr. Bryant's care. The affection of the face existed at the time of birth. Elsewhere, as on the leg, the disease began afterwards, in the form of hard raised spots, which lasted a fortnight, when blisters came, and these left sores which were long in healing.

There was no evidence of syphilis. Other children of the same parents had died in infancy, but they had had no skin disease.

This case is a very anomalous one. It has been supposed to represent true leprosy, and to indicate a connection between that disease and keloid (of Alibert). But this involves a double improbability—the development of leprosy in an infant, and its occurrence in an inhabitant of England. I therefore am disposed to think that the affection should be regarded simply as the result of common inflammation of the skin and subcutaneous tissue, leading to the development of bullæ and to ulceration; and that the tumours on the face were due to the formation of a keloid growth (false keloid of Alibert) in the cicatrices left by some of the patches which had existed in intra-uterine life.

CANCER OF THE SKIN.

Malignant growths in the skin occur in a variety of forms, both to the naked eye and histologically. Many of them are, strictly speaking, sarcomatous rather than carcinomatous in their nature. This is particularly the case with the so-called melanotic cancers. Of these our museum contains numerous models; but it has been thought that they would be most fitly placed in the series illustrating surgical affections. In the present series I include only two forms, which are of special interest to the dermatologist on account of their resemblance to certain non-malignant affections. One of them occurs in the form of rounded red tumours very like those of keloid; the other gives rise to a diffused induration of the surface. This last affection is, perhaps, the same as that described by Velpeau under the name of "*squirrhe en cuirasse*;" it has by Rasmussen been termed "primary diffuse cutaneous cancer." It

has hitherto been observed only upon the chest, and the parts affected by it have a deep reddish-brown colour.

CANCER OF THE SKIN, simulating KELOID (of Alibert). Two models (470 and 471) from the same patient.

470. This model represents the left side of the chest of a woman, having upon it some reddish growths. They probably were really cancerous, for many of them commenced beneath the integument, and only involved the skin secondarily, when they put on the appearance of keloid.

471. This model represents the back of the same patient, on which are two tumours of similar appearance, but of larger size.

The patient, a woman of middle age, was under the care of Mr. Cock in Dorcas Ward, in October, 1863.

472. DIFFUSE PRIMARY CANCER OF THE SKIN (?). The model represents a man's chest, which is the seat of a peculiar disease bearing some resemblance to scleroderma (Addison's keloid), but believed to be of a malignant nature. The affected part extends from the clavicles above to the ensiform cartilage below, and laterally to about two inches beyond the sternum on the left side, and on the right side to some distance beyond the nipple. It could be felt to have a well-defined border. Within this area the skin is much altered in colour, being of a deep brown-purple hue. The colour disappeared for an instant on pressure. The affected surface is shining; it is also very slightly scaly.

Thomas R—, æt. 25, a shoemaker, from Louth, in Lincolnshire, was admitted into Philip Ward, under the care of Dr. Owen Rees, on January 15th, 1868.

The cutaneous affection had begun two years before on the right side of the chest, and had gradually spread over its surface.

To the touch the skin had a brawny feel. It was slightly movable on the subjacent parts, but much less so than natural. It was œdematous, pitting on pressure, and the hollow made by the finger took a considerable time to disappear. The affection gave the patient no pain, but only a feeling of tenseness and slight itching. The chest beneath was perfectly resonant. There was no tenderness over any of the ribs.

The disease represented in the model was not the chief cause of the patient's coming to the hospital. He was also affected with an unusual form of paralysis. This had begun about ten months previously, when he one day, while running, found that his legs "seemed to give way." Since then they had gradually got weaker. Within the last six weeks the power in his arms had gradually been declining. He had also had twitchings both in the legs and in the arms, and all the joints were more or less rigid.

On April 11th it was noted that there was a peculiar hardness of the pectoral muscles beyond the limit of the affection of the skin, so that they felt like the rind of bacon. At the ensiform cartilage, too, the hardness of the skin extended beyond the line of redness. No other muscles were found to be hardened like the pectorals.

On May 12th he was carried home into Lincolnshire by his friends, and nothing further was heard of him.

This case excited much interest and also much difference of opinion, and it is to be regretted that there was no opportunity of determining positively its real nature.

See the 'Guy's Hospital Reports,' series iii, vol. xv, p. 305.

CIRCUMSCRIBED GANGRENE OF THE SKIN.

This affection consists in the occurrence of isolated superficial gangrenous patches in the skin. It is one about which considerable doubt still prevails, particularly as to whether some supposed examples of it have not been factitious, the patient having destroyed the integument by some corrosive agent.

Of the following cases the first is the only one of which one can say with certainty that it arose spontaneously.

CIRCUMSCRIBED GANGRENE.—Three models (473 to 475) from a patient affected with this disease.

473. This model represents the left knee, and the adjacent parts of the thigh and leg. The whole anterior surface of the knee is seen to be discoloured and of a purple hue, and in the centre of the discoloured surface is an irregular sinuous greenish-yellow gangrenous patch, surrounded by a reddish border. To the inner side of this principal patch are several

smaller ones, and on the thigh and leg there are also gangrenous spots, that on the leg having more of the ordinary black colour of gangrene, and being surrounded by a broad halo.

474. This model also represents the left knee; it was taken about a fortnight later. The principal gangrenous patch is of the same size, and almost exactly of the same form, as before, the red line being traceable round it, and almost every detail of its outline being preserved. But this red or reddish-purple line no longer forms the limit of the gangrenous action. The skin beyond it, over a space a quarter of an inch across, is itself dead, and thus it is surrounded by an orange-brown ring, of a paler colour towards the exterior, where the border, however, is pretty sharply defined. The whole surface of the knee is still discoloured, but not to so great an extent as formerly. It presents an appearance, especially at the upper part, as if still more extensive gangrene would take place. All the other gangrenous spots represented in the first model are seen in the second to have increased in size, but without there being any indication of the formation of successive rings.

475. This model exhibits the right knee of the same patient. It, like the left one, presents a general livid purple discolouration. Over the patella is an irregular gangrenous patch, like that on the opposite knee, but rather smaller. It is surrounded by a red border. On the thigh and leg are several smaller sloughing or purpuric spots.

The symmetry of the affection in this case was very marked.

J. H—, æt. 50, was admitted into Stephen Ward, under Dr. Habershon, on March 27th, 1867. He had been an out-patient of Mr. Cooper Forster, on account of difficulty in holding his water. His health and strength afterwards began to fail, and he therefore became a patient of Dr. Moxon.

On admission he was tall, with a pale face, and presented the physical signs of phthisical disease of both lungs. He was much emaciated. His mother and one sister, he said, had died of consumption. He had had syphilis twenty-five years ago, but never gonorrhœa. He had taken

beer largely, but very little spirits. His urine contained a trace of albumen; its sp. gr. was 1015.

On April 23rd the report says—"He has had a feeling of tightness in the calves of his legs for seven days. Three days ago he noticed purpuric spots on his knees. These have extended since, and other spots have appeared on his thighs, legs, and forearms. The spot on the left knee is of a deep purple colour, with a red border. The spots are rather tender. The left knee-joint has for three days been very stiff."

On the 29th it is reported that "the patch on his left knee is about an inch and a half long; it is of a semicircular shape, and appears to be formed of a surface of dead skin, surrounded by a deep purple line. The patch on the right knee presents a similar appearance, but is smaller. The other spots are of a deeper and more uniform colour. He is now ordered to take Tr. Ferri Sesquichlor. ɱviij ex Aq. t. d., and to have six ounces of wine daily."

On May 4th Dr. Fagge noted that "the centres of the patches on the knees are of a dirty greenish-yellow colour. There is perfect insensibility when these parts are pricked. There is no appreciable coldness (no doubt because the layer of dead tissue is so thin). Almost every one of the patches on the legs appears to have in the centre a gangrenous spot of skin. On the forearms, however (and especially on the right forearm), the spots seem to be merely purpuric. They are tender, and are surrounded by a slight red border."

On May 9th the ward clerk says "the small spots are gradually dying away."

The patient gradually sank, and died on May 21st.

Dr. Moxon records that on post-mortem examination tubercular disease was found in both lungs. There was also ulceration of the intestines (principally of the cæcum), and the mesenteric glands were affected.

It is noted that there were but slight signs of separation of the sloughs. Purpuric patches existed on the dorsum of the foot, and in the neighbourhood of the gangrenous spots.

See the 'Guy's Hospital Reports,' series iii, vol. xiii, p. 198.

476. CIRCUMSCRIBED GANGRENE OF THE SKIN?—Model of part of the right arm and forearm of a young woman, showing a number of patches of very irregular form, bounded by narrow raised edges, with slight redness of the surrounding skin. The patches have sinuous outlines, and seem to fit into one another, and yet to be always separated by intervals of healthy skin, as if they avoided contact. The appearance of the skin forming most of the patches now differs scarcely at all

from that of the healthy integument; but this is perhaps due to fading of the model, for it was made many years ago, and not by Mr. Towne. Towards the lower part, however, the skin is distinctly exfoliating from two patches in the form of a yellow slough, separated by a distinct interval from the raised edge formed by the healthy skin; and still lower there is an open ulcer, evidently produced by the detachment of a similar slough. This ulcer has a red floor, upon which are a number of small raised points resembling granulations. It is possible that these really were granulations; but I am rather disposed to think that they may have been islets of rete mucosum which had escaped the gangrenous process. At any rate I have noticed in similar cases that the destruction of the integument is only partial, so that healing takes place over the whole surface simultaneously, and not by extension inwards from the margin only, as in ordinary ulcers.

Dr. Addison believed that this affection was the result of the application of one of the mineral acids. But I understand that he did not himself see the patient, who was under the care of a surgeon attached to another London hospital.

See the 'Guy's Hospital Reports,' series iii, vol. xiii, 1867, p. 203.

477. CIRCUMSCRIBED GANGRENE OF THE SKIN, caused by the application of nitric acid. ? Model of the chest of a young woman, presenting numerous scattered patches of very irregular form, parts of which are of a whitish-yellow colour, and have a shining appearance. The other parts, particularly towards the margin of the patches, are of a rose-red colour. The cuticle is desquamating from their borders.

Elizabeth W—, æt. 18, an out-patient of Mr. Bryant's, was admitted into the Clinical Ward, under Dr. Hilton Fagge's care, on August 23rd, 1869, on account of a cutaneous affection, presenting considerable varieties of appearance, and in some parts taking the form of dry gangrenous patches or eschars. Such was especially the case with an irregularly oblong patch covering nearly two square inches of surface, and situated just above the left mamma. This patch was depressed, dry, yellow, and shining; and in the lower part of it a small blood-vessel could be seen, with its contained blood dried up in its interior. The margin of the patch was brownish and raised, and it was surrounded by an inflamed areola. Above the right breast was a similar spot, but smaller, and

with less-marked characters. On the left forearm there were three patches, all of more recent origin, but of different dates. The newest was red, slightly raised, and exhibited fine and closely set papules; the oldest was somewhat less raised, with the papules less distinct, and the intervening surface opaque, bluish-white, having the characters of a dry eschar; the third patch was intermediate in appearance between the other two. Other patches, again, were older than those on the chest. One, an inch and a half long, lay over the left sterno-mastoid. On the day before her admission, when she came as an out-patient to Dr. Fagge, this had presented a uniform whitish-yellow gangrenous appearance; now it was covered by a rough brownish scab, surrounded by an inflamed areola one eighth of an inch in diameter. On the left arm and on the back of the left hand, still earlier spots could be just traced, in the form of "scurfy patches," with irregular margins. Sensation was impaired over the patches on the neck and chest; but she could still occasionally feel a slight touch.

The girl stated that the affection had begun six weeks before on the left arm. Here the skin began to itch; it soon became red and slightly raised; it then acquired (according to her account) somewhat the appearance of a blister, but no fluid was discharged from it. It gradually spread in an irregular manner over a surface three square inches in extent.

On the day after her admission (August 24th) it was found that four fresh spots had come out during the night on the left forearm, and four more appeared that morning on nearly corresponding points of the right forearm. On the morning of the 25th a large patch, three inches by an inch and a half, made its appearance on the front of the right forearm, below the elbow. All these patches rapidly altered in character. In most of them, a central spot, generally of jagged and irregular outline, assumed the white gangrenous character; and this, again, quickly passed into a yellow scab-like condition. At the same time the size of the patches diminished; portions of the skin towards their periphery returning almost to the natural colour. On the 28th it was possible with the point of a knife to raise the whitish cuticle from the patch on the right forearm, exposing a reddened surface. By the 30th the crusts had fallen from the places on the neck and chest, leaving very superficial cicatrices.

At this time two or three fresh spots came out on the inner side of the right thigh, but these never acquired the gangrenous character to any marked extent. On September 3rd another patch, having rather the appearance seen in urticaria or erythema, was observed on the right arm.

On August 27th she was rather suddenly seized with symptoms of acute laryngitis. These quickly subsided; but on September 18th she had a slight return of them. The tonsils were somewhat swollen and

inflamed, and remained so until September 22nd, when she left the hospital.

The girl had been in service, but had fared badly. For three or four months, she said, she had felt weak, and unable to do her work properly. According to her own statement, she had had the same disease before, in the course of the summer, both in 1867 and 1868, though in a milder form. There were some slight marks on the chest and legs, indicating the seat of these eruptions.

She was not an unhealthy-looking young woman, nor thin; she had rather an excess of colour in her cheeks. She appeared devoid of any excessive self-consciousness or excitability, and, in fact, seemed particularly stolid and indifferent. She showed no tendency to make much of her disease, either as a cause of suffering to herself, or as a source of sympathy from others. She had passed about a fortnight beyond the proper time for her catamenia. She was ordered quinine mixture, and was directed to keep the affected parts covered with cotton-wool.

This girl was readmitted into the hospital in the course of the following year for a different complaint. She had had no return of the cutaneous affection. She still said that she could not in any way account for its occurrence; and, so far as I could judge by her manner of replying to my questions, she was quite straightforward.

See the 'Brit. Med. Journ.' for Feb. 12th, 1870, p. 150.

SYCOSIS.

This name is applied to an affection of the hair-follicles, occurring especially in the beard, and attended with the formation of pustules or tubercles, or of both together. Its characters vary greatly in different cases, and it ought, perhaps, to be regarded not as a definite disease, but rather as a group of affections, most of which are representatives of affections of other parts of the body. Thus, one form, which in France appears to be the most common of all, depends upon the growth of a vegetable parasite (the Tricophyton tonsurans). This is very rare in England, and I am not sure that I have ever seen it. I should separate it entirely from the other forms, and call it Tinea sycosis. Then, many affections of the beard are syphilitic; and some are really forms of eczema impetigo. These last, however, are not very common, for most pustular affections of the beard differ from ordinary impetiginous eruptions in destroying the hair-follicles and producing permanent scars. Thus, in a frequent form of sycosis, and one which deserves a special

name as well as any, there is formed an extensive smooth white cicatricial patch, at the borders of which only a few small pointed pustules are to be seen surrounding the hairs.

478. Sycosis. Model of the lower part of the face of a man affected with a severe form of sycosis. The mouth is entirely surrounded by a series of prominent rounded masses, of a greenish-brown colour, nodulated on the surface, as though they consisted of coarse granulations, and having projecting from them the hairs of the beard, which have been cut short so as to form a stubble. The affection extends from the nose to the chin; and below this, as well as over the lower parts of the masseter muscles, there are smaller and slightly less raised patches of the disease.

This case affords a typical instance of the appearance presented by a case of sycosis in the classical sense of the term. But I do not feel sure what relations it may bear to the diseases of other parts of the cutaneous surface, or of which of them it may be a modification.

479. Sycosis. Model of the face of a man, presenting an affection which extends over the whole of the lower lip and chin, and over the side of the face for some distance beyond the angle of the mouth, leaving the upper lip free. It consists of a number of coarse granulations, aggregated together, and forming rounded masses, with occasional corners of healthy skin between them. These granulations have a shining appearance, and appear to be pouring out a thin yellow pus.

This man was a patient of Mr. Birkett's in 1861. It was at first considered doubtful whether the affection was sycosis or epithelioma. As the man left the hospital cured, the latter hypothesis was, of course, negatived.

Is it possible that the disease was a syphiloderma? Compare models 102 and 114.

MILIARIA vel SUDAMINA.

This is not a substantive disease, but simply a result of excessive sweating. It is particularly apt to occur in acute rheumatism and other

febrile diseases, and it may also arise during the hot weather in those who are well, especially in fat persons who perspire freely.

It sometimes consists mostly of minute colourless vesicles, which make the surface of the skin look like that of the ice plant, but which can be felt better than seen. These contain an acid fluid, which is, in fact, sweat. Dr. Haight has shown that they are entirely contained within the horny layer of the epidermis, and that the ducts of the sweat-glands open directly into them.

In other cases the vesicles, instead of being colourless and almost invisible, have slightly inflamed bases. Their contents are then alkaline. Sir W. Gull, when he gave the Demonstrations in Cutaneous Diseases at Guy's Hospital, used to call this form of the affection miliaria, and to reserve the name of sudamina for the transparent vesicles. But they are often found associated together in the same case; and there appears to be no advantage in maintaining a distinction between them. Hebra and Neumann, indeed, apply these terms with meanings exactly opposite to Sir W. Gull's: miliaria to the colourless vesicles, sudamina to those which have reddened bases.

480. MILIARIA vel SUDAMINA. Model of part of the chest and neck of a female, thickly covered with numberless minute, translucent, glistening vesicles. There are also many very small, slightly raised spots, each with a central depression; apparently these correspond with the openings of the sweat-ducts, which are slightly swollen, and which are about to form vesicles. The skin is not in the slightest degree reddened.

481. MILIARIA. Model of the chest of a woman, the skin of which presents a diffused blush of redness, and has scattered over it a number of vesicles, most of which appear to contain a translucent fluid, while in others it is becoming opaque. The vesicles in this case are rather larger and bolder than in model 480. The surface of the skin may be observed to be uneven, from swelling of the mouths of the sudoriparous ducts.

The patient was in the hospital in November, 1862, and was recovering from fever, when the miliaria made its appearance.

ACNE.

All affections of the skin (except new.growths) in which the starting-point of the disease appeared to be the sebaceous glands were formerly called acne. But of late it has become usual to reserve this name for those forms which are attended with inflammation of the tissues round the glands.

Thus it often happens, particularly in persons in whom the skin is coarse, that the sebaceous ducts become distended with masses of secretion that they cannot expel. This being a greasy substance, dirt collects upon its surface, and a black point becomes visible, which projects very slightly above the level of the surface. The mass can be readily squeezed out, and is by the vulgar often supposed to be a worm with a black head. The old name for the affection is acne punctata; it is now called comedo.

On the other hand, in parts of the skin which are delicate, such as the eyelids, the obstruction of the duct of a sebaceous gland leads to accumulation of secretion in the secreting tissue itself. This then becomes converted into a white globular body, which shines through the thin cuticle. It is called milium, and when there are many the affection has been sometimes termed acne miliaris.

Neumann gives a drawing of a section of one of these little white tumours, which consists of lobular opaque masses, made up of epidermic cells and cholesterine crystals, enclosed in a slight capsule, and traversed by a sinuous fibrous band which is supposed to be the remains of the hair-follicle, this having undergone degeneration as well as the glands.

It may be noted, also, that milium is occasionally seen in parts of the skin which are the seat of cicatrices, especially after lupus.

Comedones do not always remain as passive obstructions in the sebaceous ducts. The tissues round them often become inflamed. The result is the formation of a raised red tubercle or nodule, which after a time either subsides, or suppurates in its centre. The affection is then termed "acne simplex" (or merely "acne," when that disease is defined in such a way as to exclude comedo and milium). In most cases of this kind many comedones may be seen in addition to the more or less numerous nodules of acne which arise from time to time. The face, ears, shoulders, and upper part of the back are the parts chiefly affected.

Sometimes, again, the nodules remain for a long time stationary,

neither undergoing resolution nor suppurating. They then generally have a purplish-brown colour. This form of the affection has been distinguished as acne indurata; it is not an important variety.

On the other hand, the affection which is called acne rosacea is by no means to be regarded as a mere modification of ordinary acne. It ought to have a special name; and, for want of a better, Mr. Wilson at one time attempted to revive the barbarous appellation of Gutta Rosea. It occurs only on the nose and cheeks. It is often accompanied with suppurating nodules of acne, but this is not necessarily the case. There may be merely an intense shining redness of the skin, with some swelling. After a time the cutaneous veins become enlarged, especially on the nose. The skin and subcutaneous tissues, too, often become thickened, so that massive outgrowths arise, by which the nose is greatly deformed. This affection has been called *acne hypertrophica*.

None of these affections occurs in children. Comedo and acne simplex are observed at puberty and during the next few years; acne rosacea chiefly at a more advanced period of life. A form of acne, often associated with impetigo, is an occasional sequela of smallpox.

There is another disease, which may be called *acne cornea* (after the French writers who first described it), and which is seen only in children. It consists of small pointed horny eminences scattered here and there upon the skin of the body, or limbs. On squeezing their bases a mass becomes detached which plainly contains much sebaceous matter; and an orifice is seen which is no doubt a dilated duct. The skin round them is a little reddened. They remain individually for months or even years, some fresh ones occasionally appearing, while others very slowly die away or are destroyed.

482. Comedo (Acne Punctata). Model of the face of a young man, presenting on the forehead and cheeks numerous black points, which in this case (as in most others) are of different sizes, some of the ducts having been more widely dilated than others. The largest of them, with the margins of the orifices in which they lie, are slightly raised above the rest of the surface, and there are some colourless papules without any comedones in their centre, but there is not one of those large red papules which such patients commonly present, and which are the result of inflammation in the distended follicles.

483. Comedo (Acne Punctata) et Acne Simplex. Model of the face of a patient, presenting numerous black points

(comedones) scattered on the forehead, side of the nose, and cheeks. At certain parts, especially on the right side of the forehead, there are flat papules or tubercles of a dusky red colour (acne simplex). Scarcely any of these display evidently the marks of sebaceous follicles on their summits, but there is no doubt that they depended upon inflammation of the tissues surrounding such follicles, which inflammation was secondary to obstruction of their ducts.

The patient was a young man, a shoemaker. He had acne of the shoulders and chest, as well as of the face.

484. COMEDO et ACNE SIMPLEX. Model of the back and shoulders of a young person, presenting numerous comedones (acne punctata), and some raised tubercles of a reddish-brown colour (acne simplex). There are also some brownish flat stains; these, no doubt, corresponded with former papules, which had died away. Lastly, on careful examination it may be noticed that there are some minute, white, shining spots; these are cicatrices, and they corresponded with the centres of papules of former date, where the inflammation had damaged the cutaneous textures over a very small area, but irreparably.

485. ACNE INDURATA. Model of the face of a man, presenting scattered tubercles of acne, chiefly on the cheeks, nose, and forehead. Some of them have yellow summits, indicative of suppuration. The minute blood-vessels of the cheeks are dilated and injected.

486. ACNE INDURATA. Model of the face of a man, presenting numerous tubercles of acne scattered over the cheeks, nose, and forehead. These are of a dull red colour, in some cases passing into a brown tint. Some of them are suppurating at their summits; one or two have been injured by friction or scratching, and are covered with black crusts of dried blood.

487. ACNE ROSACEA et HYPERTROPHICA. Model of the face of a man affected with a chronic inflammation of the skin and subcutaneous tissue of the face, which, as it almost always

affects the hair-follicles and sebaceous glands in a very marked way, is commonly called "acne rosacea." On the forehead, lips, and side of the face there are numerous scattered pustules, each of which was, no doubt, formed over the mouth of a hair-follicle, and began in an inflammation of the follicle and its glands. Similar pustules are also present in large numbers on all parts of the nose below the bridge. But here they are not seated upon a base of healthy skin; the surface of the nose is greatly thickened and indurated, as a result of chronic inflammation of the integument and subcutaneous tissues, and the minute vessels of the skin are greatly dilated and injected.

ACNE and IMPETIGO, consecutive to VARIOLA. Two models (488 and 489) from a patient affected with acne and a severe form of suppurative inflammation of the skin of the face, as a sequela of smallpox.

488. In this model the face of the patient is shown as it appeared when she first came to the hospital. It will be observed that comedones (acne punctata) are scattered over all parts of the face, and that there are some tubercles of acne indurata. On the sides of the nose the skin presents peculiar sinuous fissures, the result of the previous smallpox eruption. The cheeks and forehead are covered with thick brown crusts, from beneath which a viscid pus is oozing. The whole skin of the face and scalp (so far as the model extends) is greatly swollen and intensely reddened, and the features are much deformed.

489. Model of the face of the same patient as it appeared seven months later. The swelling and redness of the face have greatly diminished; the features have returned to their natural form, which is so different from that which they at one time assumed that one could hardly believe that she was the same person. Some comedones remain visible, especially about the lips, and here and there brownish crusts are still to be seen. The cheeks, nose, and forehead are deeply pitted. On the nose in particular there is more than one depressed spot, which looks as if the portions of

skin included between some of the sinuous lines shown in the former model had become completely detached.

The patient, M. S. M—, æt. 22, attended as an out-patient under Dr. Fagge's care on April 2nd, 1867. She had been attacked by smallpox seven weeks before, and had been confined to her bed for four weeks. When she came under observation her face was greatly swollen, red, and thickened; it was covered with black points corresponding with orifices of sebaceous glands, and from which comedones could be squeezed. There were impetiginous crusts on the forehead and cheeks, and some thick pus exuded from beneath these crusts. There were also tubercular elevations on the nose, cheeks, &c. She stated that before the smallpox appeared her face had been perfectly clean.

She was ordered to take the Mist. Quiniæ, t. d., and to apply the Lotio Plumbi Subacetatis to her face.

On the 16th it is noted that there was some little improvement. The face was more or less covered with tubercles of various sizes, the skin between them being much thickened.

On the 23rd the affection seemed to be extending backwards over the scalp. A peculiar appearance of the alæ of the nose was now noticed. The skin appeared to be worm-eaten, being traversed by numerous tortuous lines or cracks, dividing the surface into irregular spaces. The patient expressed a fear that this condition of the nose would lead to the entire destruction of the part.

Her condition, however, afterwards gradually improved. The tubercular elevations and the impetiginous crusts disappeared, and the redness subsided. The pitting produced by the smallpox became very marked as these changes occurred. The face still presented immense numbers of comedones (acne punctata), and the back became affected in a similar way. This was the state of affairs on June 18th.

By the month of November her face had returned to its original form and size, and was not much redder than natural. She was severely pitted by the smallpox. On the shoulders and back there was still much acne.

See the 'Guy's Hospital Reports,' series iii, vol. xiii, p. 212.

490. Acne Cornea. Model of part of the right arm and forearm of a child affected with this disease. A number of reddish papules are seen, many of which have yellow summits, which look as if they were formed of a soft solid substance. There are also numerous red lines, the general direction of which is downwards and outwards, and which were evidently produced by scratching. At one point six or seven of the papules are grouped together in the form of

an open V, with much redness of the skin round them, and it appears that they occupy the site of a former scratch.

491. Acne Cornea. Model of the left upper limb of a girl. Scattered over the back of the arm, forearm, and hand, are a number of papules, some of which have shining summits, looking as though they were passing into vesicles, or even pustules. This, however, was not the case, for the eruption was a dry one, and the summit of each papule was really formed by a little horny mass, which could be squeezed away from the base. At certain points the little tubercles are aggregated together in clusters, and about the middle of the forearm there is a patch of them which is somewhat of the shape of the letter V, and corresponds with the scar of a scratch which she had received at that spot.

The patient, E. H—, æt. 9, came under Dr. Wilks' care on February 20th, 1861. She had had the eruption ever since she was five months old. It appeared soon after vaccination, and the mother attributed it to that cause. It would sometimes get better and sometimes worse, but never entirely disappeared. On the forearm and the back of the hand there were numerous small, round, red, raised and hard tubercles, resembling somewhat the syphilitic tubercles of adults.

The girl subsequently came under the care of Dr. Gull. Both he and Dr. Wilks were much interested in the case, and regarded it as allied to molluscum more nearly than to any other affection. I well remember seeing Dr. Gull on several occasions squeeze out the hard summits of the tubercles.

A brother of the patient also had acne cornea. He died in the hospital of heart disease a few years later. Some portions of skin affected with the eruption were removed at the time of the post-mortem examination, and Mr. Howse examined them microscopically. He could not make out that the sebaceous glands were the seat of the disease; but I doubt whether the negative result of his investigations can be regarded as invalidating a view which on *à priori* grounds appears so probable.

See the 'Guy's Hospital Reports,' series iii, vol. xiii, p. 213.

MOLLUSCUM.

It has been stated that all affections which start from the sebaceous glands, except new growths, have been placed under acne. The latter receive the name of Molluscum.

Molluscum occurs in two forms, which are in fact distinct diseases.

One of them is commonly known by the name of molluscum contagiosum. It consists of white shining tubercles, which project freely above the surface of the skin, and almost always present a central depression, or umbilicus. They look as translucent as smallpox vesicles; and thus some French dermatologists have called this affection *Acné varioliforme*. On section they are found to consist of glandular lobules arranged round a central axis and with fibrous septa between them. Each lobule has a peripheral layer of columnar epithelium, and is filled towards its centre with large oval bright nucleated cells. The central axis is formed by the duct of the sebaceous gland from which (in all probability) the tumour is developed.

M. contagiosum is most commonly seen in young children, and principally on the face. It is contagious, spreading from one child to another, and also probably multiplying by local infection in the same patient. It may pass from an infant to the delicate skin of the breast of its nurse; but with this exception it seldom occurs in an adult, except on the penis and scrotum, or beneath the pubic hair, which parts are sometimes affected with it.

The other form of Molluscum is termed M. fibrosum. It is met with in adults. It consists of soft tumours, some of which lie almost entirely beneath the skin, others in its substance, and others again towards its free surface, hanging from it as pendulous flaccid growths. They gradually become more numerous as time passes on; until at length all parts of the integument may be covered with them. They are generally small, but they may reach an enormous size. They consist of a soft substance of a red colour; and, consequently, they often look purple through thin parts of the skin, so that a suspicion of their having a nævoid structure has sometimes suggested itself. Microscopically they consist in great part of very delicate connective tissue, containing numerous small oval nuclei. Indeed, the larger tumours, which have from time to time been removed by surgeons, have appeared to consist entirely of such tissue; and consequently Virchow places the affection under the Fibromata, as F. molluscum. But when a portion of skin

presenting this affection is dissected from its under surface, one finds that all the smallest tumours contain in the centre a small yellow body, which under the microscope is seen to consist of one or two enlarged sebaceous glands, and to have a hair in its midst; and it would seem that the delicate connective tissue, of which the greater part of the growth consists, is developed from the external layers of the dermal coat of the hair-follicle and sebaceous glands. This view is confirmed by the fact that even over the largest tumours the skin may be distinctly felt to be puckered in and adherent at the mouths of the hair sacs. It must be stated, however, that in persons who are severely affected with molluscum a single growth is occasionally seen within the limits of the palms and soles, which parts are commonly said to be absolutely destitute of sebaceous glands. The palate also may present similar tumours.

492. MOLLUSCUM CONTAGIOSUM. Model of the left side of the face of a girl affected with this form of molluscum. On the chin there are scattered several of the little tumours, the smallest of which is hardly larger than a pin's head. They are of the same colour as the rest of the skin. Two of them are distinctly umbilicated. Over the lower border of the inferior maxillary bone there is a much larger tumour, nearly half an inch in diameter and one sixth of an inch high, which is ulcerating at its summit.

The patient had first presented herself among the out-patients under Dr. Addison's care, two years before the model was made. She was a delicate, strumous child, about ten years old. She had two smooth tubercles situated over the ramus of the lower jaw, on the left side; these, in the course of a week, slowly underwent a kind of suppuration. On squeezing them between the fingers a quantity of cheesy matter exuded, leaving a warty looking sore, which very slowly healed. A few days afterwards other tubercles appeared, which underwent the same change; nor did they cease to appear for several months, when the general health had become improved "under the use of mercurial alteratives and exposure to country air." The girl attributed the tubercle to her having played with a schoolfellow who had a similar affection; and she appeared to communicate the disease to an older sister and to a child who lived with her; they had similar tubercular formations, for which, however, nothing was done.

See drawing 160 and Mr. Key's Inspection Book at p. 71.

493. MOLLUSCUM CONTAGIOSUM. Model of the face of a child, presenting numerous small tumours of molluscum con-

tagiosum on the chin, upper lip, right upper eyelid, and forehead. Most of them are of a pinkish colour. It is remarkable that no one of them shows the central umbilicus which is so constant a character of this affection.

The nurse who brought the child to the hospital had the disease, and so had also two other children of the same family.

494. MOLLUSCUM CONTAGIOSUM. Model of the face of a child, presenting numerous tumours on the chin, lips, right cheek, and eyelids. These show beautifully the translucent shining appearance of the growths, which makes them look almost like vesicles distended with fluid. It is curious that there is no trace of a central depression or umbilicus. Some of the tumours have well-marked pedicles, the blood-vessels in which are finely injected; and one or two of them are even becoming pendulous.

495. MOLLUSCUM CONTAGIOSUM. Model of part of the right arm and forearm of a young woman, presenting on both the outer and the inner surfaces of the elbow, and also on the front of the forearm, a large number of tumours of molluscum contagiosum. It is very unusual to find this affection developed on the extremities, particularly in an adult patient; but the colourless, shining papules and tubercles represented in the model could belong to no other affection, and some of them are distinctly flattened and even umbilicated on their summits.

496. MOLLUSCUM CONTAGIOSUM. Model of the right thigh of a young person, presenting several tumours varying greatly in size. The largest is more than half an inch in diameter. It has a raised rounded edge, and a depressed ulcerating centre, which appears to be pouring out a purulent secretion. Two others, which are very close to this one, have similar characters, but are smaller. Near them are scattered half a dozen tubercles of a brownish-pink colour, which, with the larger tumours already described, are all seated upon a broad surface of inflamed skin. Beyond this are one or two more brown tubercles; and still further off a number of colourless papules, one of which is distinctly

umbilicated, and which present the ordinary characters of molluscum contagiosum in its earliest stage.

It is stated that the inflamed and ulcerated appearance of the larger tumours was the result of the application of irritants to them; and this, no doubt, accounts also for the inflammation of the skin round them. But it must be borne in mind that, as is shown in model 492, the tumours of molluscum contagiosum sometimes undergo ulceration spontaneously, and independently of the action of any irritant.

497. MOLLUSCUM FIBROSUM. Model of the right side of the chest of a man, which is thickly covered with molluscous tumours. These are of varying sizes and shapes. Many of them are broad and flattened, having grown towards the subcutaneous connective tissue rather than towards the free surface of the integument; some of them have a livid purple appearance. Others of the tumours are much raised above the level of the skin, forming shining elevations of a bright red colour; and some are distinctly pedunculated and even pendulous. The nipple itself appears to be converted into a mass of these tumours as large as a walnut, hanging by a broad stalk. The whole texture of the skin seems coarse, and is in a condition of cutis anserina (perhaps from the influence of cold at the time when the cast was taken). It is thickly covered with ordinary black comedones (acne punctata). Some of these are scattered over the flatter tumours, but there are none on any of those which are raised and acuminated. The reason of this difference appears to be that each of the flat tumours spreads out beneath the skin under the areas of a number of sebaceous glands, besides the one round which it was originally developed; whereas the more superficial tumours stretch out the portion of skin over a single hair-follicle to form their covering. The difference in colour between the two kinds of tumours (which is sometimes very marked, so that the deeper ones have been mistaken for subcutaneous nævi) probably depends upon the greater or less thickness of the layer of integument through which the red substance of the growth is seen. In purpura similar

differences are observed, and, as I have already stated, are explicable in the same way.

See the 'Atlas of Skin Diseases' published by the New Sydenham Society. Plate xviii is a half-length picture of this patient, taken some years before the model. See also Dr. Fagge's paper in the 'Med.-Chir. Trans.,' 1870, liii, p. 225.

The following history is taken partly from the Catalogue of the Society's Atlas, partly from the report made while the man was in Guy's Hospital.

James G—, æt. 27, was admitted on April 13th, 1866, into the Hospital for Skin Diseases in Bridge Street, Blackfriars; and in April, 1870, into Clinical Ward, under Dr. Fagge.

He appeared in tolerable health; he was pale in complexion, with a coarse flabby skin. The disease had commenced when he was about eleven years old; the tumours first noticed were on the chest and back. These afterwards increased in size, and they gradually became more numerous. He said that before his admission into Guy's their numbers had been rapidly multiplying. No relation of his had had anything similar. His body, face, and limbs were covered with the tumours. On several parts of his back there were brown moles. Mr. Hutchinson considered that there were gradations of development between them and some of the more superficial of the tumours; but this seems to be improbable. The palms of the hands and the soles of the feet were free from them, except that there was a solitary one just within the area of the right palm. There were a few on the scalp. The scrotum and penis presented none of them. There were several on the red part of the lips, and there were five of them on the mucous membrane of the palate.

He was thought to be rather stunted in growth, but was five feet six inches tall. His gait was clumsy and awkward. (This was mentioned because Hebra has said that persons affected with this form of molluscum are usually stunted.)

498. MOLLUSCUM FIBROSUM. Model of the right side of the chest and shoulder of a woman affected with this disease. The tumours are far less numerous than in the case from which the previous model was taken; but it is said that there were altogether several hundreds of them on the limbs and body. They present the usual differences of form and seat, but the only pendulous ones are above the inner side of the nipple, where the areola is widely stretched and thickly covered with them.

E. N—, æt. 34, a single woman, living at Blackheath, was a patient of Mr. Cock's in September, 1859. The tumours had been growing for three years.

MOLLUSCUM FIBROSUM. Two models (499 and 500) of parts of the trunk of an old man, covered with molluscous tumours, some of which are of rather unusual dimensions.

499. Model of the chest and abdomen. The tumours are of all sizes, the smallest being not bigger than a pin's head, while the largest are more than two inches in diameter. Many of them are much raised above the surface, and one has a peduncle of flaccid skin nearly four inches long. Others have grown rather through the deeper strata of the cutis down into the subcutaneous tissue; these are of a flat shape, and many of them have smaller growths projecting from the skin which covers them. It was stated that more than 300 tumours are represented in this model.

500. Model of the back of the same patient. This is still more thickly covered with tumours than the front of the body, but they are smaller, no one of them exceeding the size of a cherry.

The patient was about eighty years old. He was never in the hospital, but was an inmate of a workhouse in Essex. Mr. Towne went there, at the suggestion of Mr. Hilton, for the purpose of making the models.

The tumours had been first noticed when he was in his eighth or ninth year, the earliest to appear having been upon the forehead. When the model was taken, there was a tumour as large as a melon at the back of the head, which, having been injured, bled considerably; there was another on the nates, weighing sixteen pounds. No part was exempt from them, but those on the limbs were of a smaller size than some on the body.

501. MOLLUSCUM FIBROSUM. Model of the left breast of a woman, showing a single tumour, nodulated, and of the size of a small walnut, hanging by a pedicle from the areola just internal to the nipple.

I have retained the name of molluscum for this case, in accordance with universal usage. But I am by no means sure that the nature and seat of the growth are really the same as in the affection represented in the previous models (497—500), in which the tumours are multiple.

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S. A. P—, a young woman, was admitted, under Dr. Wilks' care, on May 24th, 1869. Ten weeks previously, she had had scarlet fever. All the members of her family had the disease at the same time; she suffered from it more severely than any other of them.

On admission she had general dropsy and albuminuria.

On June 16th, thirteen weeks after the rash came out, it was noted that there were well-marked transverse grooves on the nails. They were on each nail of both hands, situated about midway between the fold of skin covering the root and the line where the nail separates from its bed. The part of the nail on the proximal side of the groove was perfectly smooth. The grooves were not quite horizontal, and were a little irregular as they passed across the nails.

She was discharged nearly well on August 7th.

03. ONYCHOGRYPHOSIS. Model of the left foot of an adult, the nails of which are in a remarkable condition. This is particularly the case with the nails of the great and fourth toes, each of which is three or four inches long, and twisted

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AFFECTIONS OF THE NAILS.

The following models represent various affections of the nails, of which it does not seem to be necessary to give detailed definitions. Only, in reference to the grooving of the nails after acute diseases, I may mention that Dr. Wilks has especially drawn attention to it, in the 'Lancet' for 1869 and 1870.

502. GROOVING OF THE NAILS AFTER ACUTE DISEASE. Model of the left hand of a young woman, each of the nails of which presents a curved groove at a uniform distance from its root. The slope of these grooves is abrupt from the distal, very gradual from the proximal side. This appearance suggests that the older or distal part of the nail had at one time ceased to grow continuously from its root, while growth went on from its bed. This, when the formation of nail-substance from the root was resumed, must necessarily cause the previously formed lamina to project above the level of the more recent growth.

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She was discharged nearly well on August 7th.

503. ONYCHOGRYPHOSIS. Model of the left foot of an adult, the nails of which are in a remarkable condition. This is particularly the case with the nails of the great and fourth toes, each of which is three or four inches long, and twisted

like a ram's horn. The nails of the other toes are also thickened and of a brown colour.

Probably the elongation of the nails in this case really resulted from the patient's neglecting to cut them rather than from any perversion of growth. If so, the term Onychogryphosis is hardly applicable in strictness to it.

ONYCHOGRYPHOSIS. Two models (504 and 505) of the back of the left hand of a middle-aged woman.

504. In this model the ends of the thumb and fingers are seen to be much enlarged and reddened, and their cuticle is peeling off. The nails are much deformed and thickened, but their surface is smooth, so that they may be compared to rounded claws. That of the little finger, however, appears to have been shed, being represented by only a small irregular flat mass.

505. Model of the same hand at what appears to be a later stage of the affection. The ends of the fingers are now reduced to their natural size. They are still a little reddened, and their cuticle is somewhat rough. The thick nails shown in the former model have apparently all been shed, and the nails are now represented simply by irregular flat rough masses of horny substance, growing from the bed. The little finger alone, the nail of which was the first to be shed, seems to show the commencement of a proper nail growing onwards from its root.

The patient was under Mr. Bryant's care.

506. PSORIASIS OF NAILS? Model of the right hand of a female patient. The nails are diseased. They are white, opaque, and some of them roughened by longitudinal striæ; and one or two of them present slight transverse grooves, indicating that their growth had at one time been interrupted instead of continuous. They are also slightly concave, and it is recorded that they were "thin and soft, so that they could be easily bent or turned up at their edges." The folds of skin over their roots are slightly reddened. It must be

added that there was no tendency in this case for the nails to be shed; except that of the thumb, they are of normal size, and had evidently been kept cut by the scissors.

PARONYCHIA, OR INFLAMMATION OF THE ROOTS OF THE NAILS, WITH EXFOLIATION OF THE NAILS THEMSELVES.—Three models (507 to 509) from a patient in whom the nails of the hands and feet became successively attacked with inflammation at their roots.

507. In this model one finger is shown, affected with the earliest stage of the disease. The skin forming the fold over the root of the nail is reddened, and so is also the back part of the nail itself. There is, however, no swelling, and the thin white border of cuticle extending forwards over the lunula of the nail has its natural appearance.

508. This model represents the back of the left hand, all the nails of which are seen to be affected with the disease in different stages. The finger most recently attacked is the forefinger. This has the fold of skin over the root of the nail reddened, with a white edge of exfoliating cuticle; the visible part of the nail itself, however, is healthy, showing a white lunula. It may be noted that there is a roughened state of the cuticle along the outer side of the finger, which may, perhaps, have been caused by the use of the needle, but which otherwise may possibly be an indication that the whole disease was really of an eczematous nature. The other nails are all of them exfoliating, the continuity of their growth having been interfered with, so that they now present a curved edge, which in fact corresponds with what was the extreme posterior extremity of the nail at the moment when the disease commenced. The nails are of a greenish-yellow colour, with a purple tint in some places, which last was evidently due to the extravasation of blood beneath them. No healthy new lamina is being formed, the exposed part of the bed being simply covered with a rough and irregular mass of imperfectly developed nail substance. The folds of skin which should cover the roots of these nails are much thickened as well as reddened, and their cuticle is desquamating in thin flakes.

509. Model of the left foot of the same patient, showing inflammation of the folds of skin over the roots of the nails. The nails themselves look discoloured, and there appears to have been extravasation of blood beneath two or three of them.

Mary D—, æt. 56, came as an out-patient to Dr. Wilks in June, 1858. She stated that three months previously the nail of the left ring-finger became dry and began to crack. It then came off, and a little later the other nails of the same hand became affected in a similar way. Afterwards the thumb-nail of the right hand was attacked, and all the toe-nails. She appeared to be a healthy person, and there was no assignable cause for the affection.

SCABIES. ITCH.

An affection which results from the irritation caused by the presence of the Acarus scabiei (or Sarcoptes Hominis) in the substance of the cuticle.

The most characteristic signs of scabies are the burrows (or *cuniculi*) which are made by the impregnated female acarus, and in which she lays her eggs. These are slightly sinuous lines, which may be either white or dotted with black. The latter appearance is due to the penetration of minute particles of dirt into little holes that form in the roof of the burrow. A flat vesicle or pustule often arises beneath it. There is but little difficulty in extracting the female acarus from one of these burrows with a needle; but for ready diagnosis it is often easier to snip off a portion of the burrow itself with a pair of scissors, and to place it in a little dilute liquor potassæ under the microscope, when the eggs or eggshells may invariably be recognised. Every student should take care to make himself familiar with the appearance of the burrows of the itch mite; it is in many cases impossible to make a certain diagnosis of scabies without detecting them, and there is no disease about which it is more important to be able to form a positive opinion correctly.

The burrows, which are commonly about a quarter of an inch long, are hardly large enough to be well represented in models. Our collection, therefore, shows merely the different forms of eruption that may occur in scabies. This may be either papular, vesicular, pustular or bullous, and it is to be observed that in most cases the affection is more or less mixed. It may be purely papular, in which case it resembles a prurigo; but if vesicles or pustules are present, papules are generally also to be seen.

Pustules occur especially in children; in adults they are observed only when the disease is of some months' standing.

The eruption in scabies is commonly said to be in fact a kind of artificial eczema, and it is true that eczema is not uncommonly present; but the ordinary papular and vesicular affections are to be distinguished from the corresponding forms of eczema in the absence of a tendency to form patches. Strophulus is, among non-parasitic diseases, the eruption which is most like that of scabies. In both these affections isolated papules and vesicles often continue to break out for months, without any moist patches developing themselves.

The seat of the eruption in scabies is peculiar, and this often lends great aid in its diagnosis. The papular rash occurs especially on the front of the abdomen and thighs, and on the hands and forearms. Vesicles and pustules are particularly apt to appear between the fingers, on the ulnar sides of the wrists, in the folds of the axillæ, in the creases of the nates, and, in children, on the inner sides of the feet. The face is always entirely free, except sometimes in very young children.

The burrows are most numerous between the fingers, on the palms and wrists, on the penis, and on the feet.

Scabies is highly contagious, and often occurs in several members of the same family at the same time; but it not rarely remains confined for a long time to one child or to one person in a house; this sometimes leads inexperienced practitioners to mistake it for another disease.

510. SCABIES. Model of the flexor surface of the left elbow of a patient affected with scabies, showing the minute scattered papules which constitute the whole of the eruption in very mild cases. According to the older catalogue there is a tendency to the formation of vesicles at certain points. The model also shows the little black crusts of dried blood which result from the laceration of papules by scratching, and there are some small brown stains, which doubtless corresponded with former papules that had subsided.

It need hardly be remarked that the appearances represented in this model are by no means conclusive of the existence of scabies. The affection might have been a simple prurigo.

511. SCABIES. Model of the back of the right hand and wrist of a young woman affected with scabies. The eruption consists partly of scattered minute papules, partly of very small

acuminated vesicles. It is to be observed that some of the vesicles exist at each of the angles between the fingers, and also that they are particularly numerous about the inner side of the wrist, where the epidermis is indeed roughened, and there is a tendency to the formation of a small eczematous patch.

The appearances represented in this model point very strongly to the presence of the sarcoptes hominis as the cause of the eruption; but even in such cases it is always advisable to find the animal or its ova, or at least to identify one of its burrows.

512. SCABIES. Model of the right foot of an infant, presenting some scattered vesicles, some of which have become ruptured. They are more numerous along the inner side of the arch of the foot than elsewhere; and this is worthy of notice, since that region is very commonly the seat of an abundant eruption in cases of scabies.

The child was three months old at the time when the model was taken. It is stated that the mother also had scabies. The infant is said to have had strophulus when a month old, and to have had the existing vesicular eruption for six weeks. It also had the porrigo favosa of Willan (eczema porrigo).

513. SCABIES. Model of the back of the right hand and forearm of a child, which are covered with eczematous patches said to have been due to the presence of scabies. One or two isolated vesicles are visible, but the eruption mainly consists of red patches from the size of a fourpenny piece to that of a florin or larger, covered more or less completely with yellowish crusts, which are in part blackened by the admixture of dried blood.

The child is said to have been of a strumous habit.

There is nothing in the appearances depicted in the model which can be said to be conclusive as to the parasitic nature of the eruption. But it would seem that the point which the model was especially intended to illustrate was the close resemblance to ordinary eczema.

514. SCABIES. Model of the front of the left knee and leg of a

patient, presenting an abundant eruption, which appears to have been a form of scabies. The inner side of the leg is covered with vesicles of all sizes and with bullæ, some of which had reached a considerable size and contained a yellow fluid. Other bullæ had been formed earlier and had ruptured, and their contents had dried up into yellow crusts. One of the bullæ, which has just been denuded of its roof, displays the surface of the rete mucosum moist and raw looking.

The patient was a woman who came under the care of Dr. Addison, in Martha Ward. "She was in poor circumstances, and was in the seventh month of pregnancy. The eruption had existed six months. It affected the whole surface, more or less, but especially the extremities. On the hands and feet it resembled pustular scabies; on the arms and legs, an advanced stage of eczema rubrum. After parturition it rapidly yielded to tonics and the occasional application of sulphur ointment."

Questions of treatment are excluded from the scope of this work; but it may be observed that we should always endeavour to cure scabies, once for all, by the continuous application of some substance which can kill the acari, but has little tendency to irritate the cutaneous tissues.

See Mr. Key's Inspection Book, p. 68.

515. SCABIES. Model of the back of the left hand of a young woman affected with a severe pustular form of scabies. The earliest stage of the eruption is seen in certain small rounded vesicles, the fluid within which quickly becomes purulent as they increase in size, so passing into flat pustules, some of which have a central umbilicus. There are many of them between the roots of the fingers, and especially in the angle between the thumb and forefinger, where a number of them have run together, and are discharging a viscid honey-like pus. Some of the pustules have a faint red areola round them. The whole of the back of the hand is swollen by œdema of the subcutaneous tissue.

516. SCABIES (?). Model of the back of the right forearm and hand of a child six years old. On the hand are seen numerous

rounded vesicles, some of which are very small, while others reach a considerable size; near the bend of the elbow are some other vesicles, one of which is as large as a pea. On the back of the forearm are scattered numerous bullæ which have ruptured and discharged their contents; their roofs have fallen in, and many of them are drying up into thin scabs. Some of them had apparently contained a purulent fluid.

It is stated that the eruption had existed for more than five years, and that it was "much aggravated during spring and when any local irritation had been set up. It was much mitigated by application of sulphur ointment."

It is to be regretted that this case occurred long ago, when the certain diagnosis of scabies, depending upon the discovery of the sarcoptes or its ova, was imperfectly understood. I think that the brief notes recorded in the older catalogue leave it an open question whether the disease really was scabies or whether it was a pemphigus of non-parasitic origin.

The duration of the case and the failure of a parasiticide to *cure* the eruption (which I suppose may be inferred from the statement that *mitigation* followed the use of sulphur ointment) may be urged as arguments against the opinion that it was scabies.

517. SCABIES (?). Model of the back of the right hand of a man, covered with an eruption of minute pustules of variable form, some being acuminated and others flattened. These are scattered thickly on the whole of the back of the hand, which is much reddened; and more sparingly over the lower part of the forearm. It appears that there were none of them in the forks of the fingers, where the eruption caused by the sarcoptes hominis is generally so abundant. Thus the characters of the rash are not those which usually belong to scabies, and it does not seem that any distinct proof of its parasitic origin was obtained.

The man was an out-patient, under the care of Dr. Wilks, in March, 1864. It is said that the rash (which is described as being *vesicular*) rapidly got better after the use of sulphur, "when all other remedies had failed. It was therefore probably due to scabies."

518. SCABIES. Model of the palm of the left hand of a young woman, and the corresponding surface of the wrist, on

which are scattered flat pustules. Some of them have ruptured, exposing a floor which is superficially ulcerated and blackened by extravasated blood. The cuticle is at some points extensively undermined. It may be noted that the irregular form of some of the pustules makes it probable that they carried in their roofs the burrows of the sarcoptes.

In the previous catalogue this case was designated scabies purulenta vel *cachectica*, and there is no doubt that an eruption presenting the characters represented in the model almost always indicates that the patient is in a bad state of health, and has been ill fed, as well as ill cared for.

519. SCABIES. Model of the inner side of the left thigh and knee of a patient affected with scabies, presenting a large number of flattened bullæ, which are of a dark colour from the admixture of blood with the fluid contained in them. Most of them are surrounded by red zones of considerable extent. Some of them are drying up into crusts of a greyish-black colour; two or three of them have lost their roofs, so that the surface of the rete mucosum is exposed; in one instance this is superficially ulcerated.

520. SCABIES. Model of part of the back of the right forearm of an adult patient, presenting on the elbow a scattered papular rash, and below this three angry-looking sores and a flaccid bleb. This last evidently contained a blood-stained fluid, and beneath its roof ulceration was doubtless already commencing, so that after discharge of its contents it would have formed a sore just like the other three. All of them are surrounded by extensive zones of a dusky red hue.

521. SCABIES. Model of the front of the right knee and leg of a patient, presenting a very abundant eruption in all stages, from small papules to pustules, and from these again to unhealthy-looking excavated ulcers surrounded with zones of a dusky brownish-purple hue. Many of the papules have had their summits detached (probably by the patient's finger nails), and are covered with minute crusts of dried blood.

This case is designated in the former catalogue scabies purulenta et cachectica, and no doubt such an eruption could occur only in a patient in a very bad state of health and much neglected.

522. SCABIES. Model of the inner side of the left knee and calf, presenting some scattered minute papules, vesicles, and pustules, and a few unhealthy looking ulcers of considerable size, each surrounded by a zone of dark purple colour.

TINEA FAVUS.

(FORMERLY CALLED PORRIGO LUPINOSA.*)

An affection of the skin, caused by the growth, in the epidermis and hairs, of a vegetable parasite, the Achorion Schoenleinii.

This fungus occasionally at first develops itself between the cells of the epidermis at some part of the body or the limbs, and it then gives rise simply to the formation of more or less sharply defined circular patches, which could hardly be distinguished from those of a "tinea circinata" due to the tricophyton tonsurans. The characteristic appearances of tinea favus are seen only when the parasite is growing between the epidermic layers which line the orifices of the hair-follicles. It then forms round each hair a ring of a bright sulphur-yellow colour. This is at first exceedingly minute; but it gradually increases until it may reach the size of a fourpenny-piece, or be even larger still. At the same time it becomes less bright in colour; and, from being soft and crumbling readily into a homogeneous pulverulent substance, it gets hard and brittle. It is at first covered by a layer of epidermis; but this soon wears through, and the mass itself becomes exposed. It is a discoid body, with a little central depression where the hair traverses it. It can easily be lifted up by the edge of a paper knife, when the red moist surface of the rete mucosum is seen, forming a depression in which it was imbedded, but which, after its removal, in a few hours reaches the level of the rest of the skin. When several of these discoid bodies are developed near one another, they coalesce. The whole scalp may thus be covered with a continuous crust, and on the body and limbs immense rocky masses may be found, such as are seen in no other disease—not even in rupia.

* This must not be confounded with the porrigo favosa of Willan and Bateman, a simple pustular affection. (See Eczema porrigo, p. 120.)

It appears that whenever the achorion is developed in a hair-follicle in the way above described, it always soon penetrates the shaft of the hair itself. In this it forms long delicate tubes, with a double contour like that of nerve-fibres, and which have bulbous growing extremities in the root of the hair, while towards its free end they are filled with air, and are perhaps dead. They doubtless deprive the hair of its nourishment, and make it look dry and lustreless. On the other hand, in the discoid bodies the fungus appears partly in the form of a branching mycelium, and partly in that of sporules (which differ from those of other parasitic fungi in being larger, and also in being irregular in form, oval, round, more or less beaded, &c.). These are most distinct at the peripheral or growing part of the favus-mass, while its centre is made up chiefly of granular matter.

Tinea favus appears never to lead to ulceration of the parts affected by it; but when it occurs on the scalp it gives rise after a time to atrophy of the hair-follicles, and of the papillæ of the cutis, and the surface assumes a white cicatricial appearance, being at the same time bald. In this way the disease undergoes a spontaneous cure.

523. TINEA FAVUS. Model of the gluteal regions of a girl, ten years old, presenting several patches of favus in an early stage of its development. Some of them appear as simple, reddish, raised maculæ, from which the cuticle is desquamating slightly. Others already present the characteristic sulphur-yellow discoid favus-masses, the development of which can be traced from the moment when they first become visible as minute yellow points with a central dot, —this latter corresponding with the axis of the hair-follicle in which the growth of the fungus is taking place.

According to the history of the case, which was taken at the time, the achorion must have developed itself very rapidly, for it was asserted that there had been no appearance of disease until five days before, when small red spots first showed themselves.

It may be observed that red patches, at first presenting none of the obvious characters of favus, very frequently appear on the bodies of those who have favus of the scalp. These have often been mistaken for patches of tinea circinata, so that it has been supposed that they afford an indication of transitions between the two diseases. But the further progress of such cases shows that the patches are really a modification of favus, although the characteristic discoid yellow masses do not always appear so quickly as they seem to have done in this instance.

524. TINEA FAVUS. Model of the shoulders and of the right side of the head of a girl, eight years old, affected with this disease. On the shoulders there are scattered discoid masses of favus of no great size, so that it is probable that they are of somewhat recent formation, although they have raised edges and are of a whitish rather than a yellow colour. On the scalp the disease has evidently lasted for a long time, for the hairs are scanty and straggling, and the whole scalp is of a brown colour and the skin atrophied. There are, however, no coherent masses of crust, the favus discs remaining still isolated from one another, although they have attained an unusual size and are remarkably thick towards their margins.

525. TINEA FAVUS. Model of the right shoulder of a girl, æt. 11, presenting a large red patch, on which are numerous favus-discs of all sizes, some still isolated from one another, others cohering together, and beginning to show a rough surface, from exposure of the brittle central part of the crusts. Some isolated spots of the disease are also shown on other parts of the model.

The patient was the daughter of a gardener at Richmond, and was of healthy appearance and ruddy complexion, with dark eyes and hair.

526. TINEA FAVUS. Model of the left side of the back and of the left shoulder and arm of a young woman affected with this disease in a very severe form. All stages in the development of the favus masses are represented, from minute rings, scarcely larger than pins' heads, up to large irregular brown crusts two or three inches in diameter. The model also shows very well the way in which these large masses are formed, by the confluence of several originally distinct favi. On the shoulder there is a livid patch of ecchymosis, which very probably was caused by the patient being in a bad state of health, debilitated or anæmic.

527. TINEA FAVUS. Model of the buttocks and thighs of a young man affected with a remarkable form of this disease. Not one of the ordinary small sulphur-yellow bodies is to be

seen. The affection consists of enormous masses of greyish-brown crusts, some of which are bigger than the palms of one's hands, and which in parts project an inch or more above the level of the skin. They are irregular on the surface, and must have crumbled away like masses of dried plaster or of some earthy substance. Their edges, however, are smooth, and have a festooned outline; and here there are some indications of the characteristic yellow colour.

The health of this patient was generally good. He had been in the habit of exhibiting himself; and he left the hospital prematurely lest he should be cured of the disease, having attended only on account of some other complaint.

TINEA TONSURANS. RINGWORM OF THE SCALP.

(PORRIGO SCUTULATA OF WILLAN AND BATEMAN.)

An affection of the scalp, caused by the growth of a vegetable parasite, the Tricophyton tonsurans.

This fungus appears sometimes to grow between the layers of the cuticle, giving rise to a scurfy state of the scalp. But the affection can hardly be said to exist in a definite form until the hairs themselves are attacked. A hair affected with the tricophyton presents peculiar characters. It is much enlarged, and its substance is split up into a bundle of fibres, which are stuffed with the sporules of the parasite. It becomes extremely brittle, so that it breaks off close to the surface of the scalp. All that can be seen of it is a little soft dark mass, which may, however, be coated with a white substance, consisting of the sporules of the fungus, which had apparently developed in the root sheath. When one tries to pull out a hair affected with the tricophyton it always breaks off within the follicle, and its root can never be extracted.

Isolated hairs may be affected with the tricophyton, and the disease may then be present for years without being obvious, and, indeed, without being discoverable except on the most careful scrutiny of the scalp. But much more frequently all the hairs over a certain area are attacked simultaneously, and a bald patch of greater or less size is produced, which is generally circular, and on which the short broken ends of the diseased hairs are seen.

It is remarkable how little irritation is produced by this parasite when it grows upon the scalp. The patch may be a little scurfy, or slightly reddened; but very often it is not so. Sometimes, however, the affection is complicated with eczema or impetigo.

Sometimes, too, the skin of the affected parts forms shining, red, spongy swellings. This variety of the disease has been described as a distinct affection, under the name of kerion. Comparatively little of the fungus is then generally to be found.

TINEA TONSURANS. Two models (528 and 529), representing the head of a child affected with tinea tonsurans in different stages. The identity in the size of the head and in the features suggests the opinion that both models were taken at different periods from the same child; and this is almost converted into a certainty by the fact that the spots represented in the two models correspond exactly in position, allowing for the growth of the patches in the interval which must be supposed to have elapsed between the times at which they were respectively taken.

528. In this model a number of small reddish spots are represented upon a shaven scalp. The largest of them is not bigger than a fourpenny piece; the smallest are hardly bigger than pins' heads, and appear to correspond each with the position of a single hair.

529. In this model the spots are considerably larger, and they are also of a redder colour. Some of them are still circular, while others are of irregular shapes, these having been formed by the confluence of several patches originally distinct.

In both models the cuticle of the affected parts is desquamating slightly here and there, and some of them also have small crusts of dried blood upon their surface, which, no doubt, resulted from injury to the skin by scratching or by the use of the comb. The hairs upon the affected parts appear to have been diseased in some way, for some of the patches show scarcely any of the black points which are thickly scattered over the rest of the scalp, and which, of course, represent the stumps of hairs cut short by shaving.

It is to be regretted that no record has been preserved of the microscopical appearances presented by the flakes of cuticle detached from

the patches in this case, and by any short hairs that may have still been discernible upon them. But at the time when the patient came under observation the parasitic nature of such cases was probably not known. I believe that there is not the slightest doubt that the disease was really that which is now called tinea tonsurans.

TINEA CIRCINATA. RINGWORM OF THE BODY.

I have remarked that the Tricophyton tonsurans, when it grows upon the scalp, generally causes but little irritation of the skin. It is curious that when it develops itself on any other part of the body it generally, perhaps always, causes more or less inflammation, manifested by the formation of a circular patch or ring, which spreads centrifugally. This patch or ring is generally a little scurfy, and may be said to be, in fact, an eczema squamosum, due to a special cause. Sometimes it has a few scattered vesicles upon it. It would then have been strictly entitled to the name of "herpes circinatus;" but I may remark that in practice this name was formerly given to many cases in which no vesicles were (or had been) present, provided that the eruption had an annular form.

Unlike the very obstinate t. tonsurans, t. circinata is easily cured, and, indeed, often disappears spontaneously.

530. TINEA CIRCINATA. Model of the left side of the chest and neck of a child, presenting red patches, with papular elevations upon them; one of the patches exhibits a tendency to the formation of a distinct ring. The cuticle is also desquamating slightly.

This model was in the previous catalogue designated "porrigo scutulata?" It is stated that the child was attending a school, and that several others in the family, as well as other children at the school, were affected with "porriginous disease of the scalp." Probably the case occurred before the parasitic origin of tinea tonsurans and the use of the microscope in distinguishing it were known. Hence there is no microscopical evidence to establish the real nature of the case, nor is there any record of the character of the disease which existed on the scalp. But the appearances represented in the model are exactly those which

belong to tinea circinata, as it is constantly seen on the bodies of children affected with tinea tonsurans of the scalp.

531. TINEA CIRCINATA? Model of the whole of the back of a child, presenting ten or eleven scattered rings of various sizes. The smallest of them are circular, but most of the larger ones are somewhat irregular in form. They have a narrow, sharply defined border, of a pale brownish-pink colour, which in many of the rings presents here and there a row of minute vesicles. The whole area included within the border of each patch is rough and desquamating; but it is little, if at all, reddened, except where one or two papular elevations are present. There is every reason to suppose that the patches were spreading centrifugally, and on the right shoulder one ring appears to be growing over part of the area already occupied by a neighbouring one with which it has come into contact.

The characters of this eruption are precisely those of a good example of tinea circinata, due to the growth of the tricophyton tonsurans, with the single exception that in the disease in question vesicles so distinct as those represented in the model are seldom developed.

532. TINEA CIRCINATA. Model of the right forearm and hand of a girl, presenting a large patch, which affords a capital illustration of this disease. It is on all sides surrounded by a well-defined border, festooned in outline. In some places this is simply reddened; in others it presents groups of minute vesicles. The surface of the patch generally is uneven and more or less reddened; and fine scales are separating from it.

TINEA SYCOSIS.

A third affection due to the growth of the Tricophyton tonsurans occurs in the beard and whiskers, and may therefore be called tinea sycosis. I have already referred to this affection in speaking of the other forms of sycosis which are commonly seen in England, where it is infinitely rare. One of its principal characteristics is its being associated with rings of Tinea circinata upon some adjacent part of the skin.

TINEA MARGINATA. BURMESE RINGWORM.

(ECZEMA MARGINATUM OF HEBRA.)

This is an affection which is due to the abundant growth of a fungus, the precise relation of which to other epiphytes seems not yet to have been determined. It occurs chiefly on the inner sides of the thighs, groins, and buttocks, where it forms large rings, much more extensive and bolder in outline than any that are seen in ordinary tinea circinata. The parasitic nature of this affection was first demonstrated by Köbner. I have seen one example of it in a man who had caught it in the East; but other instances in persons who had not been out of England.

TINEA VERSICOLOR.

(PITYRIASIS VERSICOLOR OF WILLAN AND BATEMAN.)

An affection of the skin due to the growth of a fungus, the Microsporon furfurans. It consists of small roundish spots of a yellowish-brown colour, which may run together, forming patches of considerable extent, enclosing occasional islets of healthy skin, and always presenting some of the early isolated spots round their margins. The affected parts may be almost smooth, but they generally have more or less tendency to desquamate; when scraped they yield a soft greasy mass to the edge of the knife, which is not the case with normal skin. This greasy mass always contains a large quantity of the microsporon, which is peculiar in forming separate little clusters of sporules, each surrounded by short branching tubes of the mycelium.

Tinea versicolor occurs chiefly on the chest and back, and on the upper parts of the arms. Its distribution often appears to be confined to those parts over which flannel is worn. The fungus is therefore supposed to require warmth for its growth; in fact, to be a "hothouse plant" in comparison with the other vegetable parasites.

533. TINEA VERSICOLOR. Model of the chest of a patient affected with this disease, presenting irregular yellowish-brown patches and spots, from which the cuticle is peeling off in small branny scales.

534. TINEA VERSICOLOR. Model of the left side of the trunk of a patient, presenting numerous scattered brown maculæ, running together on the back into large patches. It is remarkable that the centre of the chest and that of the abdomen appear to be free from the presence of the fungus.

The patient attended as an out-patient under the care of Dr. Fagge. He had been under Mr. Bryant for the same disease twelve months previously. It then disappeared in four days; but it returned eight months afterwards. It began on the shoulders. There was a good deal of itching, especially at night.

535. TINEA VERSICOLOR. Model of the left side of the chest, breast, and shoulder of a female patient, which parts are mottled with patches of a yellowish-brown colour. The surface of the affected parts is somewhat rough, from a slight tendency to desquamation of the cuticle.

PARASITIC DISEASES OF THE NAILS.

(ONYCHOMYCOSIS OF VIRCHOW.)

These are a group of affections dependent on the growth of the Achorion Schoenleinii or of the Tricophyton tonsurans in the substance of one or more of the nails. The affected parts become soft and of a yellowish-brown colour. The nail is not roughened, as in so many other affections; but it gets detached from its bed, and breaks off short. So far as I have seen, the fungus always consists of large beaded tubes, lying between the layers of horny cells of which the nail is made up. The tubes are rendered visible by the action of liquor potassæ, which, however, often has to be continued for some time before they are brought into view.

536. TINEA FAVUS OF THE NAILS. Model of the left hand of a girl who had tinea favus, and in whom the left little finger nail became the seat of parasitic disease. In the model the forefinger nail is shown to be affected as well as that of the little finger; but the latter alone was really diseased, and the model in fact represents two successive stages of the affection in the same nail.

On the forefinger the state of the nail is shown as it appeared soon after the girl's admission, when, according to her statement, the nail had been affected only two or three weeks. The yellow discoloration, due to the presence of the fungus, stopped short at about an eighth of an inch from the root of the nail. The diseased part of the nail was dry and cracked, and it was detached from its bed, and only extended about half way towards what ought to have been the position of its free edge. The anterior part of the bed of the nail was covered with an irregular, rough, brownish or yellowish mass.

On the little finger the nail is shown as it appeared twelve days later, when the lamina had become loose, so that it could easily be removed.

The girl had had very severe favus for more than four years, and said that two of her sisters had died of the same complaint.

On microscopical examination the affected nail was found to be full of the achorion Schoenleinii, spores and tubes of beautiful appearance lying within the nail substance, between its cells.

The affection of the nail was ultimately cured simply by the constant application of a solution of hyposulphite of soda, without the diseased parts having been cut away.

See Dr. Fagge's paper in the first volume of the 'Transactions of the Clinical Society,' 1868, p. 77.

537. NAILS AFFECTED WITH THE TRICOPHYTON TONSURANS. Model of a left hand, showing two of the nails affected with a disease which was due to the presence of the tricophyton in its substance.

The diseased nails are seen to be of a yellowish-brown colour, and towards their free extremities they are rough and irregularly broken.

The nails represented in this model did not belong to the same individual, but to two sisters, of whom one was affected with well-marked tinea tonsurans (in the stage designated kerion by some authors), while the other sister presented only irregular bald patches, with atrophy of the roots of the hairs, resembling those of alopecia areata, but which I now believe to have been developed from patches of tinea tonsurans.

Microscopically, the affected nails were found to be full of beautiful

beaded tubes of fungus. They were softer and cut much more readily than healthy nails.

The affection of the nails was easily cured by the constant application of a solution of the hyposulphite of soda.

See the first volume of the 'Transactions of the Clinical Society,' 1868, pp. 82, 84.

INDEX.

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